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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Andrew F. Knight

Title: PROCESS OF RELAYING A STORY HAVING A UNIQUE PLOT

Appl. No.: 10/722,473

Filing Date: November 28, 2003

Examiner: Corbett Coburn

Art Unit: 3714

Docket No.: 009

**APPEAL BRIEF**

Commissioner for Patents  
P.O.Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Further to the Notice of Appeal filed Nov. 24, 2008, Applicant provides the following Appeal Brief.

**Appeal Brief Content:**

1) Real Party in Interest: Applicant (Andrew F. Knight).

2) Related Appeals and Interferences:

The three other "storyline patent" cases that are being appealed herewith:

- "Process of Relaying a Story Having a Unique Plot," Application No. 10/846,544
- "Process of Relaying a Story Having a Unique Plot," Application No. 10/861,849
- "Process of Relaying a Story Having a Unique Plot," Application No. 10/869,082

- A fifth pending provisional “storyline patent” application (that is not currently being appealed) is “Process of Relaying a Story Having a Unique Plot,” Application No. 61/192,805.

No decisions have been rendered on these cases by a court or the Board.

3) Status of Claims:

Rejected Claims: 1-20

Appealed Claims: 1-20

4) Status of Amendments: No amendments have been filed subsequent to final rejection.

5) Summary of Invention:

Independent claim 1 recites a process of relaying a story having a timeline and a unique plot involving characters (page 6, lines 5-6), comprising:

indicating a character’s desire at a first time in said timeline for at least one of the following: a) to remain asleep or unconscious until a particular event occurs (page 10, lines 12-17); and b) to forget or be substantially unable to recall substantially all events during the time period from said first time until a particular event occurs (page 16, lines 24-28);

indicating said character’s substantial inability at a time after said occurrence of said particular event to recall substantially all events during the time period from said first time to said occurrence of said particular event (page 10, line 19 to page 11, line 2, and page 11, lines 9-11); and

indicating that during said time period said character was an active participant in a plurality of events (page 11, lines 5-8).

Independent claim 17 recites an information storage medium containing information of a story having a timeline and a unique plot involving characters (page 17, lines 21-30), said information comprising:

an indication of a character's desire at a first time in said timeline for at least one of the following: a) to remain asleep or unconscious until a particular event occurs (page 10, lines 12-17); and b) to forget or be substantially unable to recall substantially all events during the time period from said first time until a particular event occurs (page 16, lines 24-28);

an indication that said particular event has occurred at a second time in said timeline (page 10, lines 19-26);

an indication of said character's substantial inability at a time after said second time to recall substantially all events during the time period from said first time to said second time (page 10, line 26 to page 11, line 2, and page 11, lines 9-11); and

an indication that during said time period said character was an active participant in a plurality of events (page 11, lines 5-8).

6) **Grounds of Rejection to be Reviewed on Appeal:**

- Whether claims 1-20 are unpatentable under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
- Whether claims 7-15 and 17-20 are unpatentable under 35 U.S.C. 103(a) over "any movie recorded on a DVD."

7) Arguments:

**Rejections under 35 U.S.C. 101**

**Claims 1-6 and 16**

**I. Introduction**

Applicant notes that *State Street*<sup>1</sup> and *AT&T*<sup>2</sup> were controlling case law when the “ storyline patent application” cases were submitted, the Patent Office issued two office actions, and Applicant replied to the first of these office actions. The legal landscape has substantially changed with the Federal Circuit’s *en banc* decision of *In re Bilski*<sup>3</sup>, decided Oct. 30, 2008. Therefore, this Appeal Brief aims to address the Patent Office’s rejections and arguments in its Office Actions mailed April 15, 2008 (hereinafter “First Office Action”) and August 28, 2008 (hereinafter “Final Office Action”), with reference to *Bilski* where applicable. Applicant’s interpretation and analysis of *Bilski* is shown in the attached flowchart.

Applicant respectfully points out that the Patent Office’s rejections are very long and it is not always clear whether the rejections are based in statute, common law, Constitutional law, etc.<sup>4</sup> For example, in the First Office Action, the claim rejections under Section 101 do not “officially” begin until Paragraph 19 (page 7), but then Paragraph 22 sneakily rejects claims 1-20 on Constitutional grounds that were first introduced in Paragraph 4 (page 3). Thus, Applicant has decided to address every argument made in both Office Actions (without repeating himself to the extent possible), and Applicant apologizes for the excessive length of this Appeal Brief. To partially remedy this problem, Applicant will refer back to previously made arguments, when appropriate, to prevent repetition.

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<sup>1</sup> *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998) (hereinafter “State Street”).

<sup>2</sup> *AT&T Corp. v. Excel Communs., Inc.*, 172 F.3d 1352 (Fed. Cir. 1999) (hereinafter “AT&T”).

<sup>3</sup> *In re Bernard L. Bilski and Rand A. Warsaw*, 2008 U.S. App. LEXIS 22479 (Fed. Cir. 2008) (hereinafter “Bilski”).

<sup>4</sup> Further, it is not always clear how much of the Office Actions constitutes rejections based in law. Much of the content of the Office Actions is devoted, for example, to how the allowance of storyline patents would oppose public policy, even though such arguments are not, to Applicant’s knowledge, proper bases for claim rejection.

The following arguments generally reference the First Office Action, unless specifically pointing to the Final Office Action. Applicant respectfully traverses the Section 101 rejections stated therein for at least the following reasons.

## II. The “Bifurcated” System of Intellectual Property and Congressional Intent

Paragraphs 3-6, with words and phrases such as “bifurcated,” “two separate classes,” “two separate forms,” and “dichotomy,” suggest that, in the opinion of the U.S. Patent and Trademark Office, there exist two separate intellectual property protection schemes: namely, patent and copyright.

Applicant does not disagree that copyright law protects one class of creation while patent law protects another class of creation. The Patent Office argues that the line is drawn between copyright and patent where “writing” meets something “technological.” Applicant heartily disagrees. For example, software is nothing more than electronic writing<sup>5</sup>, yet will be patentable if it satisfies other requirements, such as 35 U.S.C. 102 and 103<sup>6</sup>. The test of patentability has nothing to do with whether an invention can be written. Rather, patent law aims to protect invention, while copyright law aims to protect expression. To the extent that an invention can be used for expression, a particular embodiment of that invention may be protected by both patent and copyright law.

Patent law and copyright law do not conflict. For example, the patent on a software program extends to its underlying function or method, while the copyright on that same program extends to the expression of that underlying function or method. One who verbatim copies a portion of the software program – but a portion too small to execute the patented method – infringes the copyright but not the patent. Conversely, one who writes his own software program to execute the entire patented method infringes the patent but not the copyright. Patents and copyrights are, indeed, “bifurcated,” but that says nothing about whether a particular embodiment of an invention could be protected by both a patent and a copyright. While Applicant does not dispute that stories written based on his plots are copyrightable, that fact alone says nothing about their patentability.

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<sup>5</sup> However, a software program could be embodied and read by a computer in paper form, as will be discussed later.

<sup>6</sup> See, e.g., *AT&T*.

In paragraph 15, the Office Action suggests that U.S. law already provides intellectual property protection for storylines: namely, copyright. Applicant respectfully disagrees. Copyright law does not provide any protection whatsoever for storylines. Copyright law protects particular expressions of storylines, but does not protect storylines. If storyline claims are ultimately found to be not patentable, Applicant can only hope that the public is not fooled into believing that copyright law will sufficiently protect their storylines. The Patent Office suggests that Congress has decided on a “bifurcated system of intellectual property laws with the patent laws protecting technology and copyright laws protecting expression.” But this argument fails on several levels:

- Where do storylines fit in? Storylines are not expression *per se*. They are inventions.
- This “bifurcated” system only means that there are two types of IP protection, not that any given creation can only be protected by one type. After all, a particular embodiment of patented software is clearly copyrightable. Further, consider the amusing example of U.S. Patent No. 6,213,778 to Cohen, which to the best of Applicant’s understanding is a patent on a method of creating art – clearly copyrightable – by dipping a baby’s bottom in a bucket of paint and then pressing it (the baby’s bottom) onto paper.<sup>7</sup>

Referring now to paragraph 7, the Patent Office asserts that Congress could have provided patent protection for storylines, but has not done so. Applicant respectfully disagrees. Congress didn’t want to worry itself over every little detail, so it simply passed a law that included as patentable “any new and useful process, machine, manufacture, or composition of matter...”<sup>8</sup>. When the Supreme Court interpreted Congress’ intention to include as patentable subject matter “anything under the sun that is made by man,”<sup>9</sup> Congress acquiesced. Thus, Applicant asserts that Congress did, indeed, provide patent protection for storylines, even if the specific application to fictional

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<sup>7</sup> Applicant understands that the Patent Office may have regrets about issuing this particular patent. All joking aside, many (if not all) issued patents can be embodied in a copyrightably distinct expression. That clearly makes them subject to both forms of IP protection, not just one or the other.

<sup>8</sup> 35 U.S.C. 101.

<sup>9</sup> *Diamond v. Chakrabarty*, 447 U.S. 303 (1980) (hereinafter “Chakrabarty”).

storylines hadn't occurred to anyone in Congress before now. Of course, by the same token, the fact that providing patent protection to living organisms<sup>10</sup>, software<sup>11</sup>, and business methods<sup>12</sup> probably hadn't occurred to anyone in Congress until the time of *Chakrabarty* didn't preclude such inventions from patentability.

### III. Purpose of Patent Law

The last sentence of paragraph 7 also includes a sweeping generalization that begins the diatribe of paragraphs 8-15 – namely that storyline patents “would be completely contrary to the intent of the patent law.” Applicant vehemently disagrees. Applicant asserts that the intent of patent law is to incite inventors to invent and to publish their inventions by offering them a limited time exclusive right to their inventions. In other words, the intent of patent law is to enrich the public through a *quid pro quo* exchange with inventors. Applicant asserts that patents on fictional storyline methods<sup>13</sup> serve this intent as well as patents on any other invention. If patents on new engines incite engine inventors to invent better engines that will enrich the public, why won't patents on new storylines incite storyline inventors to invent better storylines that will enrich the public? The Patent Office makes no meaningful distinction between engine inventions, software inventions, storyline inventions, or any other inventions, that would explain why patents on one set are beneficial to the public and patents on another are detrimental.

Paragraph 8 makes a startling assertion: that “Storylines may be changed, but not improved.” Applicant has interpreted this statement in two ways, and will rebut both.

- In one interpretation of this statement, the Examiner suggests that new storylines can never be created. Various plot elements can be shuffled around, but storylines can never be improved because there is never

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<sup>10</sup> *Chakrabarty*.

<sup>11</sup> *AT&T*.

<sup>12</sup> *State Street*.

<sup>13</sup> Applicant does not and never has suggested that fictional storylines are *per se* patentable. Rather, methods of relaying or implementing a storyline are patentable subject matter. Further, information-containing substrates, such as books and DVDs, are patentable subject matter to the extent that the Printed Matter Doctrine, discussed later, does not preclude software-containing substrates from patentability. The legal precedent in this latter area is muddled and confused, as pointed out in Applicant's paper *Software, Components, and Bad Logic: Recent Interpretations of Section 271(f)*, 87 J. Pat. & Trademark Off. Soc'y 493 (2005).

anything new about them. While Applicant disagrees, this is a question of novelty and nonobviousness under Sections 102 and 103, and has nothing to do with whether storyline methods are patentable subject matter.

- In another interpretation of this statement, the Examiner suggests that you cannot “improve” storylines because none are qualitatively any “better” than any other. But this is not the test of patentability. An invention need not be any “better,” more valuable, more salable, or more beneficial to the public to be patentable.<sup>14</sup>

Paragraph 10, of course, strikes at the heart of the Examiner’s argument, specifically the proposition that patents curtail the freedoms of others, and that patents on storyline methods may prevent some authors from utilizing the same storyline for a limited time. Applicant agrees! Patents, for the limited time exclusive rights they offer to inventors, do in fact exclude use of a patented invention by others, without the patentee’s permission, for a limited time. Applicant fully agrees that such an exclusive right can and often will prevent others from acting in certain ways.

However, playing the Devil’s Advocate for one moment, Applicant suggests that such an argument applies to the entirety of patent law. After all, the essential point of patent law is to allow patentees to exclude others from making, using, selling, offering to sell, and importing their claimed inventions!<sup>15</sup> It is indisputable that a patent on a new, high-efficiency internal combustion engine may curtain the freedoms of some automobile manufacturers to use the patented invention.

Why not, then, eliminate all patents today? Congress probably has authority to do so – tempered, perhaps, by the Constitution’s “takings” clause. Without any patents, every bit of published knowledge known today would be freely available for use by anyone and everyone. Prices of products would plummet, as no patent license fees would need to be paid. Imagine how happy our nation’s senior citizens would be to purchase prescription drugs for a tiny fraction of their current costs!

While eliminating patents would certainly increase the public’s wealth initially, the benefits would be short-lived. Without patents, private research and development

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<sup>14</sup> See, e.g., *Lowell v. Lewis*, 15 F.Cas. 1018 (D. Mass., 1817), in which the court held that a pump need not be better than an prior art pump to be patentable.

<sup>15</sup> 35 U.S.C. 271.

would significantly die, except for those activities that could be hidden as trade secrets. In a sentence, private innovation – more specifically, publication of private innovation – depends on the ability of inventors to obtain exclusive rights. In any event, whether or not the argument that “no patents = no innovation” is persuasive is irrelevant. The point is that Congress is persuaded by the argument and has passed the current patent laws accordingly.

The purpose of storyline patents – like patents on any invention – is not to stifle innovation, but to arouse it. By offering storyline inventors a limited time exclusive right to their inventions, they will be incentivized to invent new, interesting, exciting forms of entertainment that currently do not exist. The public would “pay” them this limited right in exchange for wholesale appropriation in (at most) twenty years after the filing of a patent application.

But doesn’t twenty years seem like a long, long time? Isn’t this a bad deal for the public? First, this is Congress’ decision, not the Patent Office’s. Second, what is the useful life of a patented microprocessor? Perhaps a few years? By the time the patent expires, the entire useful life of the invention will have expired with it. But what is the useful life of a great storyline? The entire future of humanity. It appears to Applicant that the public gets a far better deal by offering 20-year patents on storyline methods than 20-year patents on microprocessors.

In short, if the Patent Office’s position is that creativity will ultimately be stifled by storyline patents, then it must also find that creativity will ultimately be stifled by all patents.

Paragraph 10 offers the example of *Moby Dick* and *Narrative of the Most Extraordinary and Distressing Shipwreck of the Whale-Ship Essex* to indicate how storyline patent exclusivity would reduce creativity. First, the choice of these examples is akin to choosing *Romeo and Juliet* as an example. Applicant’s email inbox is full of notes from irate members of the lay public who are sincerely afraid that every existing storyline, even the simplest and most exhaustively used, will be violently thrust out of the public domain should storyline patents be found allowable. Imagine, for example, our nation’s founders trying to explain to the lay public why they should not worry about patents on chairs, wheels, and fire. It must be understood – and any reasonable

discussion of the patentability of storyline methods must acknowledge – that only new and nonobvious storylines satisfying Sections 102 and 103 would be patentable. There is nothing about *Moby Dick* that would have made it patentably distinguishable from prior art in 1851. In other words, even with the allowability of storyline method patents, there is absolutely nothing to prevent authors from creating profoundly original expressions of storylines already existing in the public domain.

However, assume that an invention, such as a new automobile engine, does not currently exist in the public domain. The Patent Office would presumably be happy to award the inventor a patent, assuming the invention satisfied other conditions for patentability, even though the patent would indeed exclude lots of very capable, creative, innovative automobile designers from *expressing* themselves in the designs of new automobiles utilizing the patented engine. Why does this sort of restriction not concern the Patent Office, while restrictions in storyline methods do? In both cases: a) an inventor is motivated by a robust patent system to conceive of something new and nonobvious; b) a creative person wishes to express herself using the new invention; and c) the creative person is foreclosed from using the invention without the inventor's permission until the patent expires. While Applicant considers himself reasonably intelligent, he has tried very hard – often drinking several cups of coffee and focusing intently – and simply cannot see any meaningful distinction between engine patents and storyline method patents as it regards public policy and the intent of patent law.

In paragraph 11, the Patent Office suggests that storylines shouldn't be patentable because writing a book or script is more “difficult and time consuming” than writing a patent application. After all, Applicant's paltry 18 pages of patent application, according to the Patent Office, hardly merit any protection, much less patent protection. While interesting, the argument fails for several reasons.

First, the value of an invention is unrelated to the length of the specification needed to describe it. The Patent Office would unlikely suggest that a future cure for AIDS or cancer, were it disclosed in an 18-page patent application, would be any less valuable than an exciting new toothbrush disclosed in a 200-page patent application.

Second, the Patent Office is attempting to compare apples to oranges. An inventor creates inventions. A writer creates writings. You cannot judge an inventor by

his writings, and you cannot judge a writer by his inventions. While it might be easier to write an 18-page description of an invention than it is to write a novel, the inventor's contribution to the world was in the invention, not in the description of the invention! In fact, because many inventors hire patent agents or attorneys to write their patent applications, many inventors don't write any description of their inventions! Does this make their contributions less worthy than those of Herman Melville, who was able to write very long fictitious accounts about a whale? Certainly not.

Applicant is the inventor of a patented rocket and rocket engine pump (U.S. Patent No. 6,499,288). To Applicant's dismay, he has never actually been capable of building a complete, manned, suborbital rocket utilizing this patented rocket engine pump. That's right. Applicant admits the sad truth: he is incapable of designing and producing a complete, manned, suborbital rocket utilizing his patented rocket engine pump. For one, he's not a skilled designer. For another, he doesn't have millions of dollars lying around for such an endeavor. The point is that Applicant's contribution wasn't in designing and producing a final embodiment of the invention, but in conceiving of the invention and then in publishing a description that will enable other people (those of "ordinary skill in the art" who also "possess boatloads of cash") to make and use the claimed invention.

Inventors are rewarded by patent law for inventing. Inventors do not have to be skilled designers, competent manufacturers, savvy businesspeople, or anything else. They just have to invent. By requiring Applicant to be a skilled storyteller before awarding him a patent is akin to requiring an engine inventor to be a skilled machinist before awarding him a patent. Such "requirements" can be found nowhere in statute or case law. Having no legal foundation, they cannot be applied to the present case.

As for whether it would be "more profitable to write patent applications than it would be to write actual stories," the Patent Office may be understating the amount of inventive effort required of a storyline inventor to conceive of new, nonobvious storylines that would satisfy Sections 102 and 103. For what it's worth, as anecdotal evidence, Applicant found it just as difficult to conceive of his patent-pending storylines as his patented rocket engine pumps.

Referring now to paragraph 12, the Examiner has thoughtfully and meticulously criticized the whole U.S. patent system! At this very moment, to use the slightly modified words of the Examiner in paragraph 12, there is “an incentive for would-be [inventors] to flood the Office with applications for [rocket engine] patents in hopes that some [rocket engine designer] is out there actually doing the work of creating a [rocket engine] from which the applicant could profit.” Why wasn’t such an argument the basis for rejection of Applicant’s rocket engine pump claims in U.S. Patent No. 6,499,288? I suspect the answer is that the Patent Office does not require inventors to design, build, and commercialize their inventions. Rather, the Patent Office only requires inventors to invent and publish – and rewards them for this effort by granting limited time exclusive rights. In fact, if one were to replace words like “writer” and “story” with words like “inventor” and “rocket engine” in Examiner’s analysis in paragraphs 12-14, one would find a very compelling argument for the abolition of the entire patent system! Compelling as it may be, Congress has already considered these arguments and has decided that the benefits of a robust patent system outweigh its detriments.

As a sidenote, if the Patent Office is actually deeply concerned that major corporations will fall prey to the whims of every independent patentee, it is not familiar with the Not-Invented-Here syndrome, by which many American companies will refuse even to license an issued patent that they clearly infringe! What the Office Action completely fails to acknowledge is the present incentive for parasitic corporations to freely steal and use others’ storylines without providing any modicum of remuneration or recognition to their true inventors. Poor little motion picture studios? Applicant thinks not.

Paragraph 13 makes the bold proposition that “Undoubtedly, the effect [of storyline patents] would be that fewer literary works would be created.” Undoubtedly? Applicant respectfully submits that reasonable people could reasonably doubt the Office Action’s assertion that storyline patents would necessarily result in fewer literary works being created. The Patent Office’s argument rests on the following hypothetical plot:

- Joe Inventor invents a storyline.
- Joe Inventor, who is an inventor and not a particularly great writer, writes a novel based on the storyline.

- Just before he publishes his novel, he discovers Storyline Patents, and decides to patent his storyline before publishing his novel.
- As a result, only licensees of his patent may write novels based on his storyline, causing fewer novels to be written than in the absence of Storyline Patents.

This plot might even carry some weight, except that it neglects the distinct possibility of the following plot:

- Joe Inventor invents a storyline.
- Joe Inventor, who is an inventor and not a particularly great writer, knows that if he writes a novel, only his particular expression of his storyline will be protectible by copyright and that the underlying storyline could be stolen by anyone else. Joe therefore decides against publishing a novel based on his storyline.
- NOBODY may write novels based on Joe's storyline, because it was never published and is thus unknown.

If the Patent Office believes that patents stifle creativity, then the Patent Office ought to stop issuing patents. Patents, by their very nature, curtail the freedoms of others. But that does not imply that fewer goods get to the public. Quite the contrary. By incentivizing inventors – rocket engine inventors, toothbrush inventors, storyline inventors – to invent and publish, more wealth is transferred to the public than in the absence of such incentives. Once again, Applicant need not belabor this point, as it is an argument already thoroughly accepted by Congress.

Paragraph 14 begins with an argument that is, again, best rebutted by showing its ready application to clearly patentable endeavors: “People of little or no [machining] skill would be able to patent [machines].” That’s right! – because patent law aims to reward inventors, even if they are poor machinists, designers, manufacturers, etc.

#### IV. “Technological Arts” Test

The argument in paragraph 15 that “storylines are not technology” is irrelevant since there is no “technological arts” test in patent law. At least one commentator has suggested the continued viability of the so-called “technological arts requirement,”

whereby courts in construing the subject matter requirement have “confined their liberal views to the realm of technology.”<sup>16</sup> What is “nontechnology” is anybody’s guess, but this commentator suggests that works of fiction, music, and “business methods not implemented with computer technology” may be unpatentable “nontechnology.”<sup>17</sup> Desperate for evidence, this commentator cites a dissenting opinion in binding case law to support the contention that creative works can never be patentable technologies.<sup>18</sup> Another commentator has opined that creative works, such as movies, “satisfy the . . . tests for being ‘useful,’ yet would not be considered to be patentable subject matter,” because “no one would imagine obtaining a patent” for such creative works.<sup>19</sup> In other words, this commentator suggests simply that the creative nature of creative works, coupled with the lay public’s suspicion that such works are not patentable subject matter, effectively precludes their patentability in spite of being “useful.”<sup>20</sup> However, the following analysis aims to demonstrate that while many patents relate to what a lay person may deem “technology,” such a relationship is not a prerequisite to patentability. It will be shown that not only is there no technological arts requirement, there is no ready means for compartmentalizing creations into patentable technology and non-patentable non-technology.

i. The Board of Patent Appeals and Interferences Has Explicitly Dismissed Any Technological Arts Requirement.

Carl A. Lundgren filed an application claiming a business method for compensating a business manager.<sup>21</sup> The Patent Office rejected the application on the grounds that the claimed invention was directed to “an economic theory expressed as a mathematical algorithm without the disclosure or suggestion of computer, automated

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<sup>16</sup> See, e.g., *Recent Development: Pure Fiction: The Attempt to Patent Plot*, 19 HARV. J.L. & TECH 231, 235 (2005) (hereinafter “Pure Fiction”).

<sup>17</sup> *Pure Fiction* at 237-8.

<sup>18</sup> *Id.* at 238.

<sup>19</sup> Robert A. Kreiss, *Patent Protection for Computer Programs and Mathematical Algorithms: The Constitutional Limitations on Patentable Subject Matter*, 29 N.M.L. REV. 31, 62, 65 (1999).

<sup>20</sup> Amazingly, the (now clearly false) assumption that “no one would imagine obtaining a patent” for fictional movies is used as evidence for the author’s contention that a “technological arts” requirement exists and precludes the patentability of movies.

<sup>21</sup> *Ex parte Carl A. Lundgren*, No. 2003-2088, 76 U.S.P.Q.2d 1385, 1385 (Bd. Pat. App. & Int. 2005).

means, apparatus of any kind.”<sup>22</sup> The patent examiner held that the claims were thus non-statutory for failing the so-called “technological arts” test under 35 U.S.C. § 101.<sup>23</sup>

Upon a request for reconsideration and rehearing, the Board of Patent Appeals and Interferences (BPAI) reversed the Examiner’s rejection, on the basis that the patentable subject matter test requires that a process claim “produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle.”<sup>24</sup> The Board pointed out that a process is statutory subject matter unless it is a law of nature, physical phenomenon or an abstract idea.<sup>25</sup> The Board ruled that there is not now, nor ever has been, a separate “technological arts” patentability test under 35 U.S.C. § 101.<sup>26</sup> The Board dismissed the contention that a new technological arts test is required by any binding decision<sup>27</sup> and specifically pointed to the Supreme Court’s decision in *Gottschalk v. Benson*<sup>28</sup> as evidence that the Court was aware of such a test and had not adopted it.<sup>29</sup>

While the *Lundgren* decision certainly expanded the scope of business method patents, its reasoning precludes the application of a “technological arts” requirement to *any* field of endeavor.

## ii. The Federal Circuit Has Refused to Adopt Technological Arts Test.

The Federal Circuit, in the *en banc* decision of *In re Bilski*, recognized that neither it nor the Supreme Court has ever explicitly adopted a “technological arts” test. The Court refused to adopt this test because “the contours of such a test... would be unclear because the meanings of the terms ‘technological arts’ and ‘technology’ are both ambiguous and ever-changing.”<sup>30</sup>

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<sup>22</sup> *Id.* at 1386.

<sup>23</sup> *Id.* at 1387.

<sup>24</sup> *Id.* at 1386.

<sup>25</sup> *Id.* at 1387.

<sup>26</sup> *Id.* at 1388.

<sup>27</sup> See *id.* at 1387 (citing *In re Musgrave*, 431 F.2d 882, 893 (CCPA 1970), *In re Toma*, 575 F.2d 872, 877–78 (CCPA 1978), and *Ex parte Bowman*, 61 U.S.P.Q.2d 1669 (Bd. Pat. App. & Int. 2001) (non-precedential)).

<sup>28</sup> 409 U.S. 63 (1972).

<sup>29</sup> *Lundgren*, 76 U.S.P.Q.2d at 1387.

<sup>30</sup> *Bilski* at 21.

### iii. No Technological Arts Requirement Could Be Legally Cognizable.

For patentability purposes, there is and can be no legally cognizable “technology” difference between an unquestionably patentable device and a device such as a DVD player loaded with a DVD that creates a fictitious, creative virtual reality emulating the method implemented by the patentable device.

Many people may fail to understand the nature of technology and be tempted to artificially dichotomize fields of endeavor as either creative or technological. One who is unfamiliar with science and engineering might attempt to classify technology as that which involves the use of screwdrivers, jackhammers, transistors, chemicals, and so forth, and therefore limit the scope of patentable subject matter. Applicant suggests that technology is no more than intentional changes<sup>31</sup> to the human condition. While until relatively recently in human history many of these changes were effected with mechanical and electrical apparatus—the very epitome of patentable subject matter—there are several dangers to so limiting the word “technology.” For example, one may be tempted to restrict patentable subject matter to “technology” that does not entertain or “technology” that entertains only in prescribed ways such as by using mechanical gears and engines. A movie thus could not be patentable either because it entertains or because it entertains in a manner that is insufficiently technological. Each such restriction is seriously problematic.

First, there can be no legally cognizable technology requirement that hinges on whether an invention *entertains*.<sup>32</sup> During the Industrial Revolution, many mechanical devices were invented that increased productivity and thus provided more people their basic needs by feeding, clothing, and housing them. For example, Eli Whitney’s invention of the cotton gin in the late 18<sup>th</sup> century helped to proliferate the availability and use of cotton clothing. As technology improved—the human standard of living improving with it—technology evolved more to improve human comfort, not just prospects for bare survival. The invention of modern air conditioning in the early 20<sup>th</sup>

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<sup>31</sup> In most cases, the intention is probably toward improvement, although one might argue that much technology (such as weapons) was intended to worsen the human condition.

<sup>32</sup> In paragraph 28 of the Final Office Action, the Patent Office agrees that whether or not an invention entertains is irrelevant for purposes of patentability.

century by Willis Carrier is clearly “technology,” even though air conditioning is a modern convenience that is rarely if ever required for human survival. Finally, as technology improved the human condition to a point at which people could live healthily and comfortably in spite of an abundance of free time, technology evolved to fill that comfort-induced void with entertainment. Pleasure boats, recreational vehicles, small airplanes, television, radio, video games, CD and DVD players and every piece of equipment for every hobby, sport and recreation imaginable are all forms of technology, not a single one of which is required for human survival or comfort. Whether a device has a primary purpose or use of more efficiently harvesting agricultural products or of entertaining the user is and should be irrelevant for purposes of patentability. Indeed, the United States Patent and Trademark Office has not hesitated to issue thousands of patents all relating exclusively to entertainment: games,<sup>33</sup> sports moves<sup>34</sup> and even methods of creating art.<sup>35</sup> It follows that the mere fact that fictional storylines entertain is not enough to classify a storyline method claim as a form of unpatentable non-technology.

Second, there can be no legally cognizable technology requirement that hinges on how an entertaining device or method entertains. Consider a new thrill ride, such as a roller coaster at a major theme park. The ride may include thousands of gears, pulleys, chains, hinges, bolts, motors, electrical actuators, relays, and so forth—i.e., patentable subject matter by any definition. Next, consider a virtual reality ride that accurately but much less expensively and with far less risk to the rider mimics the thrill ride. The virtual reality ride consists of a visual display, audio speakers, and a computer processor executing software programmed to create a virtual reality via the display and speakers that emulates the actual thrill ride. The judiciary in *AT&T Corp. v. Excel Commc'ns, Inc.*<sup>36</sup> realized that, for patentability purposes, software performing a patentable process is

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<sup>33</sup> See, e.g., Game for two people in a relationship and method of play, U.S. Patent No. 6,631,904 (filed March 21, 2001) (issued Oct. 14, 2003); Dinner party conversation generator, U.S. Patent No. 6,464,222 (filed March 21, 2000) (issued Oct. 15, 2002).

<sup>34</sup> See, e.g., Method of putting, U.S. Patent No. 5,616,089 (filed March 29, 1996) (issued Apr. 1, 1997).

<sup>35</sup> See, e.g., Painting kit and related method, U.S. Patent No. 6,022,219 (filed Dec. 18, 1998) (issued Feb. 8, 2000). See generally John R. Thomas, *The Patenting of the Liberal Professions*, 40 B.C. L. REV. 1139 (1999).

<sup>36</sup> *AT&T* at 1358. The Court in *Alappat* also stated that computer-implemented software “creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software.” *Alappat* at 1545.

indistinguishable from a machine performing that process. Consequently, the virtual reality ride is patentable subject matter alongside the actual thrill ride.<sup>37</sup> Further, that the virtual reality ride is patentable “technology” has nothing to do with whether it entertains by means of gears and pulleys or by LCD displays and microprocessors.<sup>38</sup>

Now consider a fictional motion picture that includes in its plot and corresponding cinematography indications of a character riding such a thrill ride. For example, the movie may include video images of the character riding the thrill ride from the character’s perspective.<sup>39</sup> In what legally cognizable way does this portion of the movie differ from the aforementioned patentable virtual reality ride? It doesn’t. Thus, to the extent that a DVD containing a movie having a fictional plot is configured to cause a machine such as a DVD player to generate a virtual reality—and every movie does—it is patentable subject matter.

A virtual reality machine is clearly patentable subject matter, even though it may not be patentable unless the method it executes is both novel and nonobvious under 35 U.S.C. § 102 and § 103, respectively. Further, the same virtual reality machine creating different virtual realities by executing different software embodiments may be patentable for each different software embodiment. Analogously, a television connected to a DVD player loaded with a DVD is a virtual reality machine that is patentable subject matter under 35 U.S.C. § 101, even if the machine may be unpatentable for failing the novelty and nonobviousness requirements. Further, the same machine creating different virtual realities by playing different DVDs may be patentable for each storyline embodiment in the different DVDs.

In other words, if a virtual reality ride is patentable “technology,” a motion picture is no less patentable “technology” simply for introducing more elaborate plot elements into the ride—i.e., for making the ride a subset of the entire plot. A movie is a

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<sup>37</sup> This does not imply, of course, that the virtual reality ride is patentable, for it may fail other statutory requirements—e.g., the virtual ride may have been obvious in light of existing prior art, a failure under 35 U.S.C. § 103.

<sup>38</sup> If one attempts to argue that it is the very use of LCD displays and microprocessors that puts the virtual reality ride in the realm of patentable technology, the same argument would clearly apply to fictional motion pictures, which are displayed by means of projectors, electronic displays, electric speakers, microprocessors, DVDs and DVD players, VHS tapes and players, film rolls, and so forth.

<sup>39</sup> This example is reminiscent of the scene in the motion picture *Vacation* in which fictional character Clark Griswold and his WallyWorld hostage arrive at and subsequently fall from the peak of a roller coaster. *VACATION*, Nat’l Lampoon (1983).

virtual reality, as anyone who has ever cried in a movie theater can attest to, and if a virtual reality ride is patentable subject matter, so is a motion picture.

## V. First Amendment Concerns

Paragraphs 16 and 17 hit on a fascinating issue – freedom of speech, prior restraints, and so forth. The Patent Office has mistakenly assumed that Constitutional restraints apply *carte blanche* to individual citizens. With very few exceptions, the Bill of Rights applies only to governmental action, not to private action. Further, every patent restricts expressive freedom to some extent, such as where a person desires to use a patented invention to express himself. A more detailed analysis of the problems with a First Amendment rejection follows.

Patents are strange animals. Debates rage as to whether they are forms of property, monopoly, or private regulation.<sup>40</sup> Like property, a patent allows a patentee to exclude others from using his patent.<sup>41</sup> Unlike property, a fact often confused by the lay public, a patent does not give the patentee the right to practice his own invention, in part because use of his invention may infringe another's patent.<sup>42</sup> If patents are property of some sort, they assume the form of a property-based legal theory at times, allowing a patentee to seek preliminary injunction in a court of equity to prevent future infringement.<sup>43</sup> They also assume the form of a liability-based legal theory at other times, only allowing a patentee to seek remedy at law after infringement if a preliminary injunction would have amounted to an impermissible prior restraint.<sup>44</sup> Professor Thomas of Georgetown University Law Center argues that since patents are drafted by private individuals, patents are more akin to federal regulation yielding "causes of actions in tort that applicants write for themselves."<sup>45</sup> In any event, a patent gives a patentee, a private

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<sup>40</sup> See, e.g., John R. Thomas, *The Responsibility of the Rulemaker: Comparative Approaches to Patent Administration Reform*, 17 BERKELEY TECH. L.J. 727, 741 (2002) (hereinafter "Thomas 1").

<sup>41</sup> 35 U.S.C. § 271(a) (2006).

<sup>42</sup> See, e.g., Alison Marcotte, *Concurrent Protection of Products by Patent and Trade Dress: Use of the Functionality Doctrine in Marketing Displays*, Inc. v. TrafFix Devices, Inc., 36 NEW ENG. L. REV. 327, 357 (2001).

<sup>43</sup> Andrew Beckerman-Rodau, *Prior Restraints and Intellectual Property: The Clash Between Intellectual Property and the First Amendment from an Economic Perspective*, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1, 11-18 (2001) (hereinafter "Beckerman-Rodau").

<sup>44</sup> *Id.* at 26-31.

<sup>45</sup> Thomas 1. Applicant heartily disagrees. A patent is more analogous to a federal law, drafted by a private citizen and skilled attorney, mailed to his U.S. Representative as a mere suggestion, and

actor, the right to prevent others from making, using, selling, offering to sell, and importing the claimed invention.<sup>46</sup> Whether seen as a form of property, monopoly, or private regulation, a patent gives a patentee the right to prevent others from acting and, sometimes, speaking. To what extent would free speech guarantees of the First Amendment clash with storyline patent rights?

#### A. Patents and the State Actor Doctrine

Commentators have asserted that “the initial grant and the enforcement of storyline patents in specific instances would almost certainly violate the First Amendment’s free speech guarantee”<sup>47</sup> without any recognition (or perhaps realization) that the First Amendment’s guarantee of liberty in speech applies, with few exceptions, only against the government.<sup>48</sup> For example, while political speech is arguably the most protected First Amendment speech, a trespassing speaker being forcefully ejected from private property would likely find resort to the Constitution unproductive, no matter how politically charged his speech. In other words, the First Amendment does not provide a *carte blanche* against which any entity may speak at any time, particularly where private property interests are concerned. Whether or not a patentee is limited by First Amendment principles rests largely on the state actor doctrine: “[w]hen the nominally private party performs a traditional government function, is controlled by a state entity, or engages in conduct that has been encouraged or substantially facilitated by the government, then the constitutional guarantees will apply.”<sup>49</sup> Currently, no court has addressed the applicability of the state actor doctrine to patents, a prerequisite to barring issuance or enforceability of a storyline patent on constitutional grounds.

Professor Thomas discusses the state actor doctrine as applied in three cases in which a private entity was granted a license from the government.<sup>50</sup> In *Moose Lodge No.*

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subsequently proposed, amended, and passed as a bill. The House passed the bill—not the citizen—although the citizen certainly helped.

<sup>46</sup> 35 U.S.C. § 271(a).

<sup>47</sup> *Pure Fiction* at 242.

<sup>48</sup> John R. Thomas, *Liberty and Property in the Patent Law*, 39 Hous. L. Rev. 569, 592 (2002) (hereinafter “Thomas 2”).

<sup>49</sup> *Id.* at 592–93 (footnotes omitted).

<sup>50</sup> *Id.* at 597–99.

*107 v. Irvis*, the Court held that the mere granting of a state liquor license to a private club does not convert the licensee into a state actor.<sup>51</sup> In *Jackson v. Metropolitan Edison Co.*, the Court held that even a heavily-regulated utility enjoying monopoly status does not act as the state.<sup>52</sup> Finally, in *San Francisco Arts & Athletics, Inc. v. United States Olympic Committee*, the Court held that Congress' transfer of ownership of the word "Olympic" to a private corporation did not transform the entity into a state actor.<sup>53</sup> Professor Thomas concludes that because "[p]atentees are subject to considerably less government entwinement than any of these other entities," a private patentee is likely not a state actor.<sup>54</sup> While there is a line of cases suggesting a more liberal view of the state actor doctrine where more compelling rights violations are involved (such as a libel action for political speech against a state official<sup>55</sup> and racial discrimination<sup>56</sup>), the decision to apply the state actor doctrine to a particularly difficult patent case may infect every future patent enforcement suit "with the entire panoply of constitutional defenses."<sup>57</sup> Therefore, a court would most likely view a patent as a private-property right akin to enabling a real-property owner to eject a trespasser who is loudly denouncing the government, in spite of the trespasser's compelling rights to freedom of political speech.

The aforementioned commentators miss the boat entirely by (1) ignoring the state actor doctrine and (2) citing *Harper & Row Publishers, Inc. v. Nation Enterprises*<sup>58</sup> as standing for the proposition that the First Amendment tempers intellectual property rights (specifically, the Copyright Revision Act of 1976) "by permitting free communication of

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<sup>51</sup> 407 U.S. 163, 175–78 (1972).

<sup>52</sup> 419 U.S. 345, 358–59 (1974).

<sup>53</sup> 483 U.S. 522, 544 (1987).

<sup>54</sup> Thomas 2 at 598 (Professor Thomas also notes the surprising conclusion that a patentee could, consistent with the Constitution, limit speech in a manner impermissible to the government.).

<sup>55</sup> See *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 283 (1964) (holding that the First Amendment bars a libel action against a newspaper for publishing an advertisement about a public official acting in his official capacity).

<sup>56</sup> See *Shelley v. Kraemer*, 334 U.S. 1, 20 (1948) (holding that judicial enforcement of private racially-restricted covenants constitutes state action). *Shelley*'s holding has been considerably narrowed by subsequent decisions and its precedential value has been limited. Thomas 2 at 602. Further, both *New York Times Co.* and *Shelley* were decided amidst a nation torn by politics of race. The judicial determination of the viability of storyline patents, on the other hand, is unlikely to be so influenced.

<sup>57</sup> Thomas 2 at 606.

<sup>58</sup> 471 U.S. 539 (1985).

facts while still protecting an author's expression.”<sup>59</sup> In *Harper*, the Court repeatedly mentions “First Amendment values” while holding that unauthorized use of President Ford’s memoirs was not a “fair use” under Section 107 of the Copyright Act.<sup>60</sup> However, in spite of First Amendment-style dicta and consistent with the fact that the state actor doctrine was not applied, the Court’s decision was grounded in the *Copyright Act*—not the First Amendment.<sup>61</sup> The Court refused to allow the First Amendment to “expand[] the doctrine of fair use to create what amounts to a public figure exception to copyright.”<sup>62</sup> In other words, not only is there a dearth of binding case law holding that a patentee is a state actor restricted by the First Amendment, but case law actually suggests the opposite.

## B. The Generally-Accepted Presumption that Patent Rights are not Limited by First Amendment Rights

While the specific issue of whether or not a patentee is a state actor restricted by constitutional free speech guarantees has never been litigated, and even if the state actor doctrine is momentarily (but impermissibly) ignored, the following analysis aims to demonstrate that Congress, the Judiciary, and private entities all act under the apparently generally-accepted presumption that a patentee is not so restricted.

### i. Section 271 Includes Restrictions on Otherwise-Protectable Commercial Speech

While patent law is not ordinarily perceived to involve restricting speech or expression, the Patent Act specifically limits at least some commercial speech by granting a patentee the right to prevent others from offering to sell a patented invention.<sup>63</sup> In *DeSantis v. Hafner Creations, Inc.*,<sup>64</sup> the district court held that a magazine

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<sup>59</sup> *Pure Fiction* at 243 (quoting *Harper & Row Publishers, Inc.*, 471 U.S. at 556).

<sup>60</sup> *Thomas* 2 at 600.

<sup>61</sup> *Harper & Row Publishers, Inc.*, 471 U.S. at 559–60; *Thomas* 2 at 600.

<sup>62</sup> *Harper & Row Publishers, Inc.*, 471 U.S. at 559–60; *Thomas* 2 at 600.

<sup>63</sup> See 35 U.S.C. § 271(a) (2006).

<sup>64</sup> 949 F. Supp. 419 (E.D. Va. 1996).

advertisement—which is commercial speech ordinarily protected under the First Amendment<sup>65</sup>—for an allegedly-infringing gun holster was an infringing offer for sale actionable under Section 271(a).<sup>66</sup> Further, the Federal Circuit held in *3D Systems, Inc. v. Aarotech Laboratories, Inc.*,<sup>67</sup> that mailing letters to four companies describing products for sale and their prices was an infringing offer for sale, whether or not the letters created a contractual offer.<sup>68</sup> Thus, Section 271(a) ensures a patentee the right to curtail certain otherwise-protected commercial speech—namely commercial speech amounting to an offer for sale of a patented invention.<sup>69</sup> First Amendment defenses were never raised in these cases. Apparently, asserting that a privately-acting patentee is a state actor subject to First Amendment limitations sounds ludicrous even to defendants.

## ii. The Patent Office Regularly Issues, and Private Entities Regularly Enforce, Patents that Inherently Restrict Speech

Methods of creatively painting may be patentable.<sup>70</sup> In addition, methods having the steps of querying a respondent<sup>71</sup>, instructing a person to act<sup>72</sup>, or engaging others to answer and discuss open-ended questions<sup>73</sup> may be patentable. One issued patent relating to home improvement includes a claim step of “presenting the design ideas to a client.”<sup>74</sup> “[M]ethods of teaching language, music, vocabulary acquisition, dialogue writing, and mathematics” have been patented in various forms.<sup>75</sup> In each of these patents, execution of the claimed invention does not merely include the possibility of speech—it *requires* speech or expression in some form. In some cases the invention requires expression

<sup>65</sup> See, e.g., Beckerman-Rodau at 34.

<sup>66</sup> *De Santis*, 949 F. Supp. at 426.

<sup>67</sup> 160 F.3d 1373 (Fed. Cir. 1998).

<sup>68</sup> *Id.* at 1379; see Beckerman-Rodau at 35.

<sup>69</sup> See Beckerman-Rodau at 35.

<sup>70</sup> See, e.g., Painting Kit and Related Method, U.S. Patent No. 6,022,219 (filed Dec. 18, 1998) (issued Feb. 8, 2000).

<sup>71</sup> See, e.g., Method and Apparatus for Administering a Survey, U.S. Patent No. 6,093,026 (filed July 6, 1998) (issued July 25, 2000).

<sup>72</sup> See, e.g., Character Assessment Method, U.S. Patent No. 5,190,458 (filed Apr. 17, 1991) (issued Mar. 2, 1993).

<sup>73</sup> See, e.g., Dinner Party Conversation Generator, U.S. Patent. No. 6,464,222 (filed Mar. 21, 2000) (issued Oct. 15, 2002).

<sup>74</sup> Method for Designing and Illustrating Architectural Enhancements to Existing Buildings, U.S. Patent No. 5,668,736 col.5 l.11 (filed Jan. 25, 1995) (issued Sept. 16, 1997).

<sup>75</sup> Thomas 2 at 590.

which, when fixed in a tangible medium of expression,<sup>76</sup> is protected under the Copyright Act.<sup>77</sup>

While the Patent Office is not the final arbiter to determine if the First Amendment applies to patents, it acts as a rulemaking agency of the federal government charged with upholding the Constitution.<sup>78</sup> To the extent that the Patent Office regularly issues patents that are so intertwined with speech that use of the patents requires expression—and in many cases even copyrightably *creative* expression—it implicitly asserts that the First Amendment is not a concern to the patent system.

Furthermore, the following examples suggest that private litigants employing high-priced attorneys do not seem to think highly enough of the argument that the First Amendment is applicable to private patentees to argue it. In 2001, a federal court issued a restraining order prohibiting Juno Online Services, Inc. from practicing a patented method of competitor NetZero, Inc.<sup>79</sup> The patent, which claimed a method of displaying advertisements in floating windows,<sup>80</sup> is inherently and intimately intertwined with otherwise-protected commercial speech; First Amendment concerns did not arise, however.<sup>81</sup>

First Amendment concerns may be relevant, however, in evaluating a patentee's rights to the extent that a preliminary injunction could amount to an impermissible prior restraint. While the specific case has not yet arisen, working analogies are instructive on the conflict between the First Amendment and other intellectual property rights. For example, a company may recover against a defendant who unlawfully expropriates and disseminates a company's protected trade secrets; in other words, a citizen has no First Amendment right to freely speak such secrets.<sup>82</sup> Nevertheless, prior restraints are considered so heinous a form of censorship, even when one has threatened to disseminate

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<sup>76</sup> See 17 U.S.C. § 101 (2006).

<sup>77</sup> See 17 U.S.C. § 106 (2006).

<sup>78</sup> Thomas 2 at 613–14.

<sup>79</sup> Nancy Weil, *NetZero Suit Hits Juno with Restraining Order*, NETWORK WORLD, Jan. 8, 2001, available at 2001 WLNR 11763442.

<sup>80</sup> Communication System Capable of Providing User with Picture Meeting Characteristics of User and Terminal Equipment and Information Providing Device Used for the Same, U.S. Patent No. 6,157,946 col.1 ll.56–67 (filed Aug. 26, 1998) (issued Dec. 6, 2000). See also Thomas 2 at 589.

<sup>81</sup> Thomas 2 at 589.

<sup>82</sup> See, e.g., Universal City Studios, Inc. v. Corley, 273 F.3d 429, 458 (2d Cir. 2001) (holding that the First Amendment does not permit a person to publish secret DVD decryption software) (hereinafter “Universal City Studios”).

valuable trade secrets, that “courts generally do not allow preliminary relief that restricts free speech” because “[a]ny short-term restriction of free speech that might ultimately be adjudicated constitutionally protected speech is unacceptable to a court.”<sup>83</sup> Applying this analogy to the patent arena, a defendant’s appeal to the First Amendment is likely to be successful, if at all, only on the question of a preliminary injunction preventing the defendant from speaking in an infringing manner.

### iii. The Patentable and Copyrightable Nature of Software Teaches that Free Expression Fails to Restrict a Private Patentee’s Rights

Software is often touted as enjoying the privileged status of intellectual property that may be protected under both patent and copyright law.<sup>84</sup> For example, a software patent claim might include an information-containing substrate configured to cause an appropriately-configured machine to execute the software’s function. An actual embodiment of the software in the form of code (usually written in a modern programming language) is a fixation in a tangible medium of expression that is copyrightable.<sup>85</sup> In other words, the expression of the actual embodiment is copyrightable while the idea embodied on a physical substrate or apparatus is patentable. The dual nature of software protection is easily understood by recognizing that software, fundamentally a set of instructions,<sup>86</sup> is no more than information. In that respect, software is comparable to the information found in a copyrightable novel, song, or newspaper article.

However, like a novel, the information in software is subject to—and in fact at times actually requires—creative expression. If a novel is the creative embodiment of a raw plot, software is the creative embodiment of a raw function. More particularly,

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<sup>83</sup> Beckerman-Rodau at 26–27.

<sup>84</sup> See, e.g., Mark H. Webblink, *A New Paradigm for Intellectual Property Rights in Software*, 2005 DUKE L. & TECH. REV. 12, ¶29 (2005) (hereinafter “Webblink”).

<sup>85</sup> See 17 U.S.C. § 101 (2006).

<sup>86</sup> See generally Andrew F. Knight, *Software, Components, and Bad Logic: Recent Interpretations of Section 271(f)*, 87 J. PAT. & TRADEMARK OFF. SOC’Y 493, 494 (2005) (hereinafter “Software, Components, and Bad Logic”).

software is expression that is indeed protected by the First Amendment,<sup>87</sup> but it is also capable of private restriction via patents and copyrights.

In *Bernstein v. United States Department of State*,<sup>88</sup> a Ph.D. graduate student studying electronic encryption challenged the requirement that he obtain a license to publish encryption software, which was allegedly controlled by the Arms Export Control Act.<sup>89</sup> He contended that the software was protected First Amendment speech and the Arms Export Control Act served as an impermissible prior restraint on this speech.<sup>90</sup> The district court agreed with Bernstein on the basis that “[t]he statutory language, along with the caselaw of numerous circuits, supports the conclusion that copyright protection extends to both source code and object code” and “[f]or the purposes of First Amendment analysis . . . source code is speech.”<sup>91</sup> The court specifically rejected the contention that functionality reduces First Amendment protection by pointing out that “[i]nstructions, do-it-yourself manuals, recipes, even technical information about hydrogen bomb construction are often purely functional; they are also speech . . . Like music and mathematical equations, computer language is just that, language, and it communicates information either to a computer or to those who can read it.”<sup>92</sup>

*Bernstein* was directed to restrictions imposed by the federal government on First Amendment speech; software is a subset of protected First Amendment speech.<sup>93</sup> While *Bernstein* asserts that *all* software code (even object code<sup>94</sup>) is protected First Amendment speech,<sup>95</sup> no court has ruled that these protections are applicable in limiting the rights of private copyright and patent holders attempting to recover for damages against an infringer, no matter how expressive or creative the infringing software is.

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<sup>87</sup> *Universal City Studios*, 273 F.3d at 449-50.

<sup>88</sup> 922 F. Supp. 1426 (N.D. Cal. 1996).

<sup>89</sup> *Id.* at 1430-31.

<sup>90</sup> *Id.*

<sup>91</sup> *Id.* at 1436.

<sup>92</sup> *Id.* at 1435.

<sup>93</sup> *Id.*

<sup>94</sup> But see Patrick Ian Ross, *III. First Amendment c) Computer Programming Language: Bernstein v. United States Department of State*, 13 BURKE/Tech. L.J. 405, 409-10 (1998) (arguing the insufficiency of the *Bernstein* court’s analogies between software and other speech, such as music). Further, for a hearty discussion on the distinction between software-as-function and software-as-expression, and whether or not software is speech for First Amendment purposes, see Dan L. Burk, *Patenting Speech*, 79 TEX. L. REV. 99 (2000) (hereinafter “Burk”).

<sup>95</sup> *Bernstein*, 922 F. Supp. at 1435.

Software may itself be a *form* of expressive speech. For example, consider a security technology developer who patents software for encrypting information to prevent unauthorized copying. A rogue citizen, protesting the American regime of strong intellectual property protection, uses the patented software without a license to create and prolifically distribute decrypting software that overcomes the developer's patented encryption scheme. The protestor's software is itself political speech that infringes the developer's patent. While this precise issue has never been litigated, common sense instructs that the developer would be able to recover for patent infringement.<sup>96</sup> Patent law does not look to the *purpose* behind an infringer's act.<sup>97</sup> Unlike copyright law's fair use, educational, and other statutory-infringement exceptions,<sup>98</sup> such exceptions are notoriously absent from patent law. One who infringes a software patent for good reasons or bad, for profit or nuisance, for charged political propaganda or for fun, is still an infringer.

In addition, software may be the result of a primarily expressive *effort* – e.g., 99% creative and 1% functional—and nevertheless be fully protected under patent law. For example, because writing software is as much art as science, a particular computer function may be implemented by uncountably many software embodiments.<sup>99</sup> Software engineering students in the course of fully understanding this fact might engage in a coding competition in which the student who drafts the most complicated, convoluted, and confused code for a predetermined simple function wins. Yet, no matter how much creativity and expression were involved in such coding, the resulting software would infringe a patent if it executed the claimed method.<sup>100</sup>

Finally, software may *include* otherwise-protected expressive speech without restricting a copyright or patent holder's rights. Consider a would-be infringer who

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<sup>96</sup> See, e.g., *Universal City Studios* at 458. Patent issues did not arise in *Universal City Studios* because the encryption code was not patented. The Court had no trouble applying traditional American principles of strong intellectual property protection, however, to conclude that the First Amendment is not a loophole to justify the expropriation of an individual's intellectual property. *See id.*

<sup>97</sup> See 35 U.S.C. § 271(a) (2006).

<sup>98</sup> See, e.g., 17 U.S.C. § 107 (2006).

<sup>99</sup> Software is simply a set of instructions to cause an appropriately configured machine to execute a desired function. *Software, Components, and Bad Logic* at 494. Intuitively, as there are many ways (i.e., sets of instructions) to make a peanut butter and jelly sandwich (i.e., the desired function), there are many possible software embodiments for any desired computer function.

<sup>100</sup> See 35 U.S.C. § 271(a).

includes otherwise-protected First Amendment speech, such as politically charged messages, between the lines of copyrighted or patented source code. To the dismay of the infringer who planned on bypassing the patent by invoking the First Amendment, patent law contains no statutory infringement exceptions.<sup>101</sup> Moreover, the First Amendment is probably not a limitation on a software patentee suing for damage recovery.<sup>102</sup>

In essence, if software is speech for First Amendment purposes,<sup>103</sup> and it is also subject to private appropriation via both copyright and patent law,<sup>104</sup> common sense demands that the former not kill the latter. While some commentators seem bothered by the apparent conflict between the simultaneous protection and private restriction of certain speech,<sup>105</sup> their confusion (but probably not their indigestion) may be assuaged by recognizing that a private patent owner bringing a lawsuit to recover damages against an infringer is, as previously discussed, not a state actor restricted by the First Amendment.

### C. Protected Speech Versus the Patent System

While binding case law suggests that—and government and private entities act as if—a patentee is not a state actor limited by the First Amendment, there is a far more persuasive reason that patentees should not be limited by the First Amendment: a binding decision that a patent owner is a state actor whose enforcement activities are trumped by any First Amendment concerns would all but annihilate patent rights. Essentially, any time a potential infringer dressed up a patented apparatus or method with a sufficient quantity of creativity, expression, or otherwise-protected First Amendment speech, he would avoid liability.

Consider, in the software arena, a would-be infringer who writes a fictional short story. The story is then fed to a creatively-designed compiler that converts the fictional story to object code that causes a computer to execute a patented method. Is the fictional

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<sup>101</sup> 35 U.S.C. § 271.

<sup>102</sup> See generally Thomas 2 at 588-606.

<sup>103</sup> See Bernstein, 922 F. Supp. at 1435.

<sup>104</sup> See Webbink at ¶29.

<sup>105</sup> See, e.g., Mark A. Lemley & Eugene Volokh, *Freedom of Speech and Injunctions in Intellectual Property Cases*, 48 DUKE L.J. 147, 149–51 (1998).

story protectable First Amendment speech? Indubitably. For example, the United States would be prohibited from censoring or controlling publication of the short story based upon its content.<sup>106</sup> Nevertheless, if the First Amendment could trump the private patentee's rights to recovery for infringement, the protected story could, and presumably would, proliferate among those who used the story for the software code it contained, without any reward to the patentee. Similarly, consider the software pirate who inserts politically-charged (but nonfunctional) messages throughout patented software code and distributes the code without authority from the inventor, knowing that his protected political speech will always overcome a charge of patent infringement. Said another way: whether or not all software code is inherently First Amendment-protected speech,<sup>107</sup> all software code can be *converted* into First Amendment-protected speech, whether by *using* the code as speech, expressively *writing* it, *embedding* it with speech, or *reading* it as speech. Thus, if the First Amendment kills a patentee's right to recover for infringement of his software patent, then he has, *de facto*, no patent rights at all. Every valuable software patent would be lawfully infringed via the First Amendment loophole.

The above examples do not only apply to software patents. Most, if not all, patented processes, machines, manufactures, and compositions of matter<sup>108</sup> could be converted into First Amendment-type speech. Consider, for example, a would-be infringer of a valuable patented consumer product who, while otherwise impermissibly manufacturing the product, needlessly but expressively shapes or dresses the product to invoke the First Amendment trump against patent infringement. Subsequently, he could profit from selling the pirated product without paying any royalty to the inventor. Consider a would-be infringing user of a pirated video camera who asserts that her regular artistic uses of the camera constitute a First Amendment bar against patent infringement recovery by the uncompensated inventor. Consider a would-be infringer who manufactures, sells, and profits from a patented airplane. To escape the obligation to pay or even notify the patentee, he hires an artist to paint a First Amendment-type message on the side of each plane. The examples are endless, as virtually *every* patent

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<sup>106</sup> There are but a handful of specific exceptions to this rule, such as in the cases of fighting words, obscenity, and incitement of illegal activity. *See, e.g.*, Beckerman-Rodau at 27.

<sup>107</sup> For example, there is debate as to whether bare object code counts as speech for First Amendment purposes. *See, e.g.*, Burk.

<sup>108</sup> *See* 35 U.S.C. § 101 (2006).

could be infringed in a manner that was expressive, creative or otherwise protectable under the First Amendment. In such a regime, to the extent that a patented invention is made or used in any First Amendment-protected context, the inventor would go unrewarded for her contribution, and patent rights would exist in name only.

For all of the above reasons, the First Amendment cannot be a valid basis for rejection of claims in the present application.

## VI. Abstract Idea

In paragraph 22, the Office Action states that a storyline *per se* is an abstract idea. Next, it states that “a storyline [cannot] be transformed into a patentable process merely by reciting it as a process of telling a story,” and cites classic dicta from *Diamond v. Diehr*<sup>109</sup>. What the Office Action leaves out is the immediately preceding sentence: “Similarly, insignificant postsolution activity will not transform an unpatentable principle into a patentable process.” (Emphasis added.) For example, consider a claim having two steps: a) implementing [unpatentable mathematical formula or abstract idea]; and b) recording results from step a). Chances are good that this would not pass the *Diamond v. Diehr* test because recording results might be considered an “insignificant postsolution activity” to implementing the otherwise unpatentable mathematical formula.

However, claim 1 of the present application does not contain any such abstract idea that is transformed by insignificant postsolution activity. Claim 1 recites “indicating a character’s desire...” “indicating said character’s substantial inability...” “indicating that ... said character was an active participant...” and so forth. Indicating desire, for example, is not an abstract idea that exists only in the ether – it is a real activity, a real step, a real procedure that real people perform every day in every city in every country! For example: “I want ice cream!” There’s nothing abstract about this – it is the act of indicating desire. Gravity is an abstract idea. The fact that the binary number 1110 equals 14 in base 10 is an abstract idea. But there is nothing abstract about the act of shouting “I want ice cream!”

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<sup>109</sup> 450 U.S. 175, 187 (1981) (hereinafter “Diehr”).

Paragraphs 24-25 liken storyline method patents to a mathematical formula found unpatentable in *Gottschalk v. Benson*<sup>110</sup>. Upon first reading this, Applicant felt prepared – armed with a large mug of coffee and all – to determinedly defend storyline patents from this attack, when an incredible realization struck him: there had been no valid attack! It is the Patent Office's obligation to provide a *prima facie* case against the patentability of storyline methods. The burden, according to MPEP 2100, is on the Patent Office. Not a single shred of evidence is provided in the entire Office Action that the storyline method claims of the present application are “analogous to a mathematical formula.” It is the Patent Office’s obligation to explain why the claimed storyline processes and information storage media are abstract ideas. How is the process recited in claim 1 of the present application any more abstract than the “method of pumping a fluid” claimed in U.S. Patent No. 7,082,750 to Applicant? They’re simply processes reciting specific, definite, non-abstract steps!

In paragraph 41 of the Final Office Action, the Patent Office admits that “There is no post-solution activity in claim 1” and then asserts that “Claim 1 is an abstract idea – period.” Applicant respectfully disagrees with the latter statement.

Section 101<sup>111</sup> includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof...”. In *Diamond v. Chakrabarty*<sup>112</sup>, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria. While Section 101 should be read extremely broadly, the Court reminded the nation that specifically

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<sup>110</sup> 409 U.S. 63 (1972) (hereinafter “Benson”).

<sup>111</sup> 35 U.S.C.

<sup>112</sup> 447 U.S. 303, 308-9 (1980) (hereinafter “Chakrabarty”).

excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas.<sup>113</sup>

The Supreme Court offered precious little guidance on what exactly is an unpatentable “abstract idea.” The Court instructed that while “Congress plainly contemplated that the patent laws would be given wide scope,” exceptions to statutory subject matter under Section 101 include “laws of nature, physical phenomena, and abstract ideas.” As examples, the Court cites “a new mineral discovered in the earth,” “a new plant found in the wild,” Einstein’s “celebrated law that  $E=mc^2$ ,” and Newton’s law of gravity.<sup>114</sup>

None of the Court’s examples are “made by man.” The former two represent naturally occurring objects, while the latter two represent *fundamental mathematical truths* about the universe that were discovered, but not *made*, by humans. The claimed inventions are not fundamental mathematical truths about the universe. Applicant *made* them; he did not merely discover them. The processes did not exist prior to their conception by Applicant. Therefore, the claimed processes are not abstract ideas under *Chakrabarty*.

In *Le Roy v. Tatham*<sup>115</sup>, the Court said that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive...”. For example, the electromagnetic force (coupled with the mathematical equations that describe it) is a fundamental truth. It is also an original cause and motive that, for example, causes magnets to attract or repel. The claimed inventions are not fundamental truths, original causes, or motives. They are inventions by Applicant that are neither fundamental nor original to the universe. Therefore, the claimed processes are not abstract ideas under *Le Roy v. Tatham*.

Next, the Federal Circuit stated in *Alappat*<sup>116</sup> that “abstract ideas constitute disembodied concepts or truths which are not ‘useful’ from a practical standpoint standing alone, i.e., they are not ‘useful’ until reduced to some practical application.” *State Street*<sup>117</sup> interpreted *Alappat* to say that “Unpatentable mathematical algorithms are

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<sup>113</sup> *Chakrabarty* at 309.

<sup>114</sup> *Id.*

<sup>115</sup> 14 How. 156, 175 (1852).

<sup>116</sup> *In Re Alappat*, 33 F.3d 1526, footnote 18 (Fed. Cir. 1994) (hereinafter “*Alappat*”).

<sup>117</sup> *State Street* at 1373.

identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”

Applicant respectfully asserts that the claimed processes are not abstract ideas under these definitions. First, a step of “indicating...” (as recited in the claims) is certainly not a “truth” of any kind. “Indicating” is neither true nor false. Second, a step of “indicating...” is not a disembodied concept. For example, “indicating a desire for ice cream,” such as shouting “I want ice cream!” is very specific and embodied. While  $E=mc^2$  may be a disembodied concept, there is nothing disembodied about a specific action, whether it be “drilling,” “lifting,” “transforming,” or “indicating.”

Third, a step of “indicating...” is very useful from a practical standpoint standing alone. For example, “indicating a desire for ice cream” provides useful information to the observers of such indicating, namely that the person so indicating has a desire for ice cream. A person who is “indicating a need for help,” such as shouting “Help!” will find the step of indicating very useful from a practical standpoint standing alone. Claims 1-6 and 16 recite a process of relaying a story having a unique plot, including indicating several elements of the plot. These steps of indicating are useful from a practical standpoint standing alone at least by providing entertainment or information. Therefore, the claimed processes are not abstract ideas under *Alappat*.

Finally, case law suggests that the legal construct of “abstract idea” is directly associated with *mathematical algorithms*. For example, consider *In re Warmerdam*<sup>118</sup>, in which the cited prior art was “a mathematical procedure known as Hilditch Skeletonization method”: “The body of claim 1 recites the steps of ‘locating’ a medial axis, and ‘creating’ a bubble hierarchy. These steps describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic ‘abstract idea.’” (Emphasis added.) The claims were also directed to mathematical formulae in *Arrhythmia Research Technology v. Corazonix Corp.*<sup>119</sup>, which commented on *Diamond v. Diehr*: “The Simson claims are analogous to those upheld in *Diehr*, wherein the Court remarked that the applicants ‘do not seek to patent a mathematical formula [known as the “Arrhenius equation”]. . . . they seek only to foreclose from others the use of that

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<sup>118</sup> 33 F.3d 1354, 1360 (Fed. Cir. 1994) (hereinafter “Warmerdam”).

<sup>119</sup> 958 F.2d 1053, 1059 (Fed. Cir. 1992).

equation in conjunction with all of the other steps in their claimed process'. 450 U.S. at 187, 209. Simson's claimed method is similarly limited. The process claims comprise statutory subject matter." (Emphasis added.)

Further, the Federal Circuit in *Alappat*<sup>120</sup> stated that "Although many, or arguably even all, of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements ... to produce a useful, concrete, and tangible result." (Emphasis added.) *State Street*<sup>121</sup> characterized *Alappat* as holding that "data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced 'a useful, concrete and tangible result'--the smooth waveform." (Emphasis added.) Even in *Bilski*<sup>122</sup>, the Federal Circuit struck down the Applicants' claims as "effectively pre-empt[ing] any application of the fundamental concept of hedging and mathematical calculations inherent in hedging." (Emphasis added.) Other examples demonstrate that the phrase "abstract idea" is associated with mathematical algorithms.<sup>123</sup>

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<sup>120</sup> *Alappat* at 1544.

<sup>121</sup> *State Street* at 1373.

<sup>122</sup> *Bilski* at 32. Unfortunately, even though the Court asserts that "The true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process" (p. 7), it gave no guidance on how to determine if one is seeking to claim an abstract idea, or even what an abstract idea is. Significantly, it refers to both *Diehr* and *Benson*, in which the claimed processes each involved mathematical algorithms. Only on page 32 does the Court summarily assert, without explanation, that hedging, and the mathematical calculations inherent in hedging, are fundamental principles.

<sup>123</sup> For example, in *Parker v. Flook*, the Court resolved the issue of whether the mathematical formula recited in Applicant's claim constituted an unpatentable abstract idea. 437 U.S. 584, 587 (1978). The Court referred to *Benson*: "In *Benson* we concluded that the process application in fact sought to patent an idea, noting that '[the] mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.' [*Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)]." *Id* at 589. (Emphasis added.) As another example, the Applicant under *In re Schrader* attempted to patent "a novel way of conducting auctions," asserting that he did not claim an abstract idea because there was no mathematical algorithm implicit in the claim. The Court disagreed because a mathematical algorithm is a "procedure for solving a given type of mathematical problem' ... [and the claimed] process, although expressed in general terms, is within or similar to a class of well-known mathematical optimization procedures commonly applied to business problems called linear programming." 22 F.3d 290, 293 (Fed. Cir. 1994). (Emphasis added.)

Clearly, the claims pending in the present application have nothing to do with mathematical algorithms. Specifically, steps of “indicating...” the elements of a fictional plot have nothing to do with a “procedure for solving a given type of mathematical problem”<sup>124</sup>. Therefore, the claimed processes are not abstract ideas.

Applicant respectfully submits that the reason for the prohibition against patenting abstract ideas is to prevent fundamental truths that exist independently of human existence (like  $E=mc^2$ ) from being claimed by one person. If a claimed invention was not simply discovered but *created* by a human (and thus wouldn’t have existed but for that human), Applicant respectfully submits that the invention should be examined against prior art for patentability.

A method is a method and should be examined as such.<sup>125</sup> The Supreme Court has made clear that statutory subject matter includes “anything under the sun that is made by man.”<sup>126</sup> Unless the claimed invention is merely a law of nature<sup>127</sup>, a natural phenomenon<sup>128</sup>, a manipulation of basic mathematical constructs<sup>129</sup>, an abstract idea constituting disembodied concepts or truths that are not useful<sup>130</sup>, or an incomprehensible claim to an abstract energy state<sup>131</sup>, it is patentable subject matter. There is simply no statutory or common law exempting from patentability a useful method for producing entertainment.

Other claim forms, besides methods, may also be patentable subject matter, such as an article of manufacture containing the storyline. Consider a claim—which may be dubbed a “storyline article claim”—to a storage medium, such as a DVD or video cassette:

A machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story

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<sup>124</sup> *In re Schrader*, 22 F.3d 290, 293 (Fed. Cir. 1994).

<sup>125</sup> *State Street* at 1377.

<sup>126</sup> *Chakrabarty* at 309.

<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> *Warmerdam* at 1360.

<sup>130</sup> *State Street* at 1373.

<sup>131</sup> *In re Bonczyk*, 10 Fed. Appx. 908, 911 (Fed. Cir. 2001) (hereinafter “Bonczyk”).

having a unique plot, the story involving characters and having a timeline, the process comprising:

indicating that a first character...

The above claim format is substantively indistinguishable from the thousands of computer program product claims allowed by the Patent Office since *In re Beauregard*. If a computer disk containing a functionally unrelated but independently patentable software is patentable, should not a DVD containing an independently patentable storyline (in the form of a method executed by a consumer via her DVD player) also be patentable? Further, as previously discussed, a book-bound fictional novel containing a patentable method is probably patentable simply because the inscriptions in the pages of a novel just *are* a computer program—given a computer programmed to read prose as a software language. A patentable software program embodied in a tangible medium is patentable. Analogously, a patentable storyline method embodied in a tangible medium—e.g., a novel—may also be patentable subject matter.

Further, the claimed processes do not claim *mental processes*, nor did the Patent Office contend that they claim mental processes. For example, “indicating...” (as recited in claims 1-6 and 16) is an active step that is not a “process of human thinking” and does not “depend... on human intelligence alone.”<sup>132</sup>

If claims 1-6 and 16 are found to recite an abstract idea<sup>133</sup>, Applicant agrees that they would not be patent-eligible subject matter under *Bilski*. However, if claims 1-6 and 16 are found not to recite an abstract idea, Applicant respectfully submits that *Bilski* is not applicable, in which case these claims recite patent-eligible processes and should be examined as such.

## VII. “Concrete Result”

Regarding paragraph 28 in the First Office Action, the Office Action contends that the claimed process does not produce a concrete result because, according to the

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<sup>132</sup> *In re Comiskey*, 499 F.3d 1365, 1377-8 (Fed. Cir. 2007) (hereinafter “Comiskey”).

<sup>133</sup> In footnote 5, *Bilski* defines “fundamental principles” as “laws of nature, natural phenomena, and abstract ideas.” It is not disputed that none of the claims recite laws of nature or natural phenomena.

“Interim Guidelines,” a process must “substantially produce the same results,” and a process that produces unpredictable results cannot be considered to be concrete. First, the “Interim Guidelines” are not binding on the Federal Circuit or Supreme Court. More importantly, however, the “useful, concrete and tangible result” analysis has been abandoned by the Federal Circuit in *Bilski* in favor of the machine-or-transformation test, thus mooting the Patent Office’s argument.<sup>134</sup>

Further, paragraphs 28 and 29 assert that the claimed processes are not concrete because “a dozen different storytellers can use the same plot to tell a dozen different stories.” True, but these dozen different stories will all be predictably the same in one fundamental way – they will all include the claimed features! By Examiner’s “heightened” concreteness standard, no claim of any patent application would ever be concrete! Consider, for example, the following patented claim: A method for manufacturing a toaster, comprising: performing A; performing B; and performing C.

Isn’t it true, to use the Office Action’s language, that “a dozen different [toaster manufacturers] can use the same [method] to [manufacture] a dozen different [toasters]”? Couldn’t this process produce unpredictable results? For example, consider whether a toaster manufacturer could perform the following completely unpredictable method based on the claimed method to arrive at entirely unpredictable results: performing A; drinking a shot of tequila; performing B while humming a Neil Diamond tune; performing C with a blue crayon; and playing a rousing game of hopscotch. Because the claimed process could indisputably produce these unpredictable results, then it would fail the Examiner’s “heightened” concreteness standard. We are left to conclude that either no patent applications can ever pass this test, or that the stated test is incorrect. Applicant argues for the latter. In the case of claim 1 of the present application, for example, the concrete result of performing the claimed process is that a story has been relayed having the specifically recited plot elements.

### VIII. Printed Matter Doctrine

Referring now to paragraphs 30-31, the First Office Action applies the so-called “printed matter doctrine” to reject claimed subject matter that “constitutes non-functional

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<sup>134</sup> *Bilski* at 20.

descriptive material that does not exhibit any functional relationship to the substrate upon which it is recorded...”. First, this rejection is not applicable to all claims, because claims 1-16 claim *processes*, not articles of manufacture or substrates (e.g., information storage media or claims 17-20) upon which material is recorded.<sup>135</sup> Second, using the printed matter doctrine to reject claims under Section 101 is completely inappropriate because the printed matter doctrine is a question of affording patentable weight to printed matter for purposes of examination over prior art (Sections 102 and 103).<sup>136</sup> Nevertheless, because the Patent Office has, in paragraph 44 of the First Office Action, utilized the printed matter doctrine to reject 7-15 and 17-20 under Section 103, Applicant will respectfully traverse the printed matter rejections below.

A primary thrust of the following analysis is that a DVD containing patentable software is, under the current patent scheme, a patentable article of manufacture, even though the software itself clearly has no “functional relationship” to the CD-ROM substrate. Books and movies are information-containing substrates analogous to DVDs and are patentable therewith.

The “printed matter doctrine” is loosely defined as the principle that nonfunctional descriptive material in a claim is not afforded patentable weight over prior art. In *In re Gulack*, the applicant claimed a wearable ribbon containing various numbers and equations, intended to assist the wearer in performing various arithmetic calculations.<sup>137</sup> The Board of Patent Appeals and Interferences had overturned the Examiner’s §101 rejection of the claims under the printed matter doctrine, on the basis

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<sup>135</sup> The printed matter rejection has, to Applicant’s knowledge, never been applied to processes by the BPAI or higher court. For example, in *In re Lowry*, discussed later, only claims 1-5, addressed to a memory for storing data, were subjected to the printed matter doctrine, even though other claims recited processes. 32 F.3d 1579, 1581-2 (Fed. Cir. 1994). It is not even clear to Applicant how the printed matter doctrine could be applied to a process claim that does not recite anything (such as an article of manufacture) that contains printed matter. To the extent that the printed matter doctrine is good law and is properly applicable to process claims, Applicant’s arguments stated herein apply to all claims pending in the present application to the extent relevant.

<sup>136</sup> *In re Gulack*, 703 F.2d 1381, 1384 (Fed. Cir. 1983) (hereinafter “Gulack”). The Patent Office cites three cases to support the proposition that a “mere arrangement of printed matter, though seemingly a ‘manufacture,’ is rejected as not being within the statutory classes.” Applicant respectfully disagrees. For example, the Court in *In re Miller* pointed out that “The fact that printed matter by itself is not patentable subject matter, because non-statutory, is no reason for ignoring it when the claim is directed to a combination” … “of three elements constituting a ‘manufacture.’” 418 F.2d 1392 (CCPA 1969). In any event, to the extent that the conclusions of these earlier cases conflict with *Gulack*, *Gulack* is controlling. Claims 17-20 of the present application claim information storage media, such as books and DVDs, that are clearly articles of manufacture.

<sup>137</sup> *Gulack* at 1384.

that the ribbon was clearly a statutorily allowed “article of manufacture.”<sup>138</sup> The question at issue was whether the printed matter doctrine prevented the numbers and equations printed on the ribbon from receiving patentable weight under Sections 102 and 103. In other words, the printed matter doctrine—to the extent that it is still applicable—relates to the question of prior art under Section 103, *not* of statutory subject matter under Section 101.<sup>139</sup> The Federal Circuit, pointing out that printed matter rejections stand on “questionable legal and logical footing,” stated that “where the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability,” and held that the ribbon was patentable because the printed matter was both functionally related to the ribbon and because the relationship was new and nonobvious.<sup>140</sup>

In *Ex parte Robert W. Carver*, the applicant claimed a stereophonic recording which, when the recording is played on a stereo player machine, creates sounds in one location that cancel out certain sound patterns received at an opposing location.<sup>141</sup> The court found that the sound information stored on a recording medium did *not* evoke the printed matter doctrine because “the claims, when considered as a whole... broadly define an article of manufacture (i.e., the recording in which the sound pattern is embodied) rather than a sound pattern per se.”<sup>142</sup> The truly amazing fact, as pointed out by the Dissent, is that the claimed recording involved a *sound pattern* recorded on any one of a variety of possible substrates (records, magnetic tapes, CDs, etc.) with *no functional relationship* to the chosen substrate. Thus, in finding that the claims distinguished over the prior art, the Court ultimately gave the sound pattern per se patentable weight despite the printed matter doctrine.

The “functional relationship” test of the printed matter doctrine, as applied to machine-processed information, was put to rest in *In re Lowry*, in which the applicant’s claims related to the storage, use, and management of information residing in a

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<sup>138</sup> *Gulack* at 1384.

<sup>139</sup> For at least this reason, Applicant traverses the Patent Office’s application of the printed matter doctrine to reject the present claims under Section 101.

<sup>140</sup> *Gulack* at 1385.

<sup>141</sup> 227 U.S.P.Q. (BNA) 465 (Board of Patent Appeals and Interferences, 1985).

<sup>142</sup> *Id.*

memory.<sup>143</sup> First, reiterating that the printed matter doctrine stood on questionable legal and logical footing anyway, the Federal Circuit distinguished the present case over past printed matter cases, which “dealt with claims defining as the invention certain novel arrangements of printed lines or characters, useful and intelligible only to the human mind [as opposed to a machine].”<sup>144</sup> According to the Court, “The printed matter cases have no factual relevance where ‘the invention as defined by the claims requires that the information be processed not by the mind but by a machine, the computer.’ … Lowry’s data structures … are not accessible other than through sophisticated software systems.”<sup>145</sup>

The problem with the Court’s analysis is that a human brain *is* a computer. Just as a properly trained software designer, given sufficient time and coffee, can process *any* software<sup>146</sup>, a computer can be programmed to read, process, and find intelligible any “novel arrangements of printed lines or characters.”<sup>147</sup> Thus, the Court’s asserted mind-machine dichotomy is a distinction without a difference in an electronic world in which books are often read on a computer screen and printed words and sentences may be optically scanned and read as “useful and intelligible” commands to a computer. Further, recognizing that its asserted mind-machine dichotomy may be insufficient, the Court reduced the printed matter issue to one question: does the claimed invention *perform a function?*<sup>148</sup>

In *In re Beauregard*, the applicant’s computer program product claims were rejected as nonstatutory on the basis of the printed matter doctrine.<sup>149</sup> During appeal, the Commissioner of Patents, apparently realizing the futility of arguing the printed matter doctrine, changed the Patent Office’s position such that “computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. § 101 and must be examined under 35 U.S.C. §§ 102 and 103.”

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<sup>143</sup> 32 F.3d 1579, 32 U.S.P.Q.2D (BNA) 1031 (Fed. Cir. 1994) (hereinafter “Lowry”).

<sup>144</sup> *Lowry* at 1583.

<sup>145</sup> *Lowry* at 1583.

<sup>146</sup> Even the least human-accessible software, that which is written in machine code (a series of 0s and 1s), can be understood and processed by a human brain. The process would be inefficient, no doubt, but there is no software that is “not accessible other than through sophisticated software systems.”

<sup>147</sup> Even read from a paperback book!

<sup>148</sup> *Lowry* at 1584.

<sup>149</sup> 53 F.3d 1583, 35 U.S.P.Q.2D (BNA) 1383 (Fed. Cir. 1995) (hereinafter “Beauregard”).

What is surprising but equally clear, given the above-discussed law, is that a *sheet of paper* upon which patentable software is printed is *patentable*. Software is merely a set of instructions to a processor for performing a method, and may be written in *any* conceivable language and on *any* conceivable substrate. It makes no difference that the software language used may also be intelligible to and readable by a human mind. Consider, for example, a software language that reads like ordinary English. A sheet of paper is then imprinted with a software program, and is intended to be fed into a computer processor via an optical scanner that reads and executes the software's method, but can just as easily be read and “executed” by a human person. Make no mistake: the imprinted sheet of paper is the very epitome of printed matter. Yet, under *In re Beauregard*, the imprinted sheet of paper is a “computer [program] embodied in a tangible medium,” and must be examined for patentability under Sections 102 and 103. In other words, if the software's method is patentable, so is the imprinted sheet of paper.

In fact, a patentable software method may be embodied in a book-bound fictional novel. Because a processor may be programmed to glean instructions for performing the patentable method directly from the novel's words, the novel itself may be a patentable article of manufacture to which the printed matter doctrine is wholly inapplicable.

It may be argued that the Federal Circuit in *In re Ngai* revived the waning printed matter doctrine by holding that printed instructions describing a new, nonobvious use for a product does not impart patentability to a claim directed to a combination of the product and the instructions.<sup>150</sup> Applicant respectfully asserts that *Ngai* introduced a “dependence” test; *Ngai*'s printed instructions “in no way depend[] on the kit, and the kit does not depend on the” printed instructions.<sup>151</sup> Assuming that *Ngai* did not kill the patentability of *Beauregard*-style software claims<sup>152</sup>, it must be concluded that such claims pass *Ngai*'s dependence test. In other words, because software must be physically embedded on *some* information storage medium (hard drive, web server, disk, optical media, paper, etc.), and because an information storage medium obtains value from the

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<sup>150</sup> 367 F.3d 1336 (Fed. Cir. 2004) (hereinafter “*Ngai*”).

<sup>151</sup> *Ngai* at 1339.

<sup>152</sup> The Patent Office is, after all, still issuing patents, and patentees are still exacting royalties and successfully litigating, on such claims.

information stored upon it, the software depends on the information storage medium and the information storage medium depends on the software.

Applicant respectfully submits that *Lowry* killed the “functional relationship” test of the printed matter doctrine by creating an artificial, indeterminate, and indefensible mind-computer dichotomy, even though the human brain *is* a computer. The printed matter doctrine deals “with claims defining as the invention certain novel arrangements of printed lines or characters, useful and intelligible only to the human mind [as opposed to a machine].”<sup>153</sup> Claim 17 of the present application recites an information storage medium and claim 18 further limits the information storage medium to a book. Because the claimed indications may be useful and intelligible to a computer or machine (for reasons discussed previously<sup>154</sup>), the claimed indications are not “useful and intelligible only to the human mind.” (Emphasis added.) Further, to the extent that the *Lowry* Court boiled down the printed matter doctrine to the question of whether the claimed invention *performs a function*<sup>155</sup>, Applicant respectfully submits that claims 17-20 perform at least the functions of informing and entertaining. Thus, claim 17, and all claims dependent thereupon, are believed to pass *Lowry*’s printed matter doctrine (to the extent that it is still good law), and all limitations in the claims should be given patentable weight.<sup>156</sup>

Assuming *arguendo* that *Lowry*’s mind-machine distinction is upheld, and the “functional relationship” test of the printed matter doctrine is applicable *except* as applied to machine-processed information, *Lowry* also states that “The printed matter cases have no factual relevance where ‘the invention as defined by the claims requires that the information be processed not by the mind but by a machine, the computer.’”<sup>157</sup> Claim 19 of the present application recites that the information storage medium contains video information of a motion picture, and claim 20 further limits the information storage medium to a DVD. Because video information of a motion picture must be processed by

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<sup>153</sup> *Lowry* at 1583.

<sup>154</sup> For example, such indications could be read, interpreted, and processed by an appropriately configured machine or computer.

<sup>155</sup> *Lowry* at 1584.

<sup>156</sup> All of the pending claims would satisfy this requirement. However, as discussed previously, the printed matter doctrine has never been applied to processes, and application to the processes claimed in the present application (claims 1-16) is inappropriate because they do not claim substrates upon which material is recorded.

<sup>157</sup> *Id.*

a machine or computer<sup>158</sup> (particularly the video information contained on a DVD), the invention as defined in claims 19-20 “requires that the information be processed not by the mind but by a machine.” Thus, claims 19 and 20 are believed to pass *Lowry*’s printed matter doctrine (to the extent that it is still good law), and all limitations in the claims should be given patentable weight.<sup>159</sup>

The application of *Ngai* to claims 17-20 does not change the result. To the extent that *Ngai* did not kill the patentability of *Beauregard*-style software claims, *Ngai* also should not prevent the patentability of claims 17-20, directed at *Beauregard*-style information storage media. Claims 17-20 pass *Ngai*’s “dependence” test as well as software: because the indications of claims 17-20 must be physically embedded on *some* information storage medium (hard drive, web server, disk, optical media, paper, etc.), and because an information storage medium obtains value from the information stored upon it, the indications *depend* on the information storage medium and the information storage medium *depends* on the indications. If a DVD containing information that instructs a machine to perform a function is not subject to the printed matter doctrine – i.e., if *Beauregard*-style software claims can distinguish over the prior art based on the information embedded on a functionally unrelated information storage medium – then a DVD containing information that instructs a machine to display a movie is also not subject to the printed matter doctrine. Thus, claims 17- 20 are believed to pass *Ngai*’s application of the printed matter doctrine, and all limitations in the claims should be given patentable weight.<sup>160</sup>

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<sup>158</sup> *The American Heritage® Dictionary of the English Language* (Fourth Edition ©2000 by Houghton Mifflin Company, Updated in 2003) defines the word “video” as: adj. 1. Of or relating to television, esp. to televised images. 2. Of or relating to videotaped productions or videotape equipment and technology. 3. Of or relating to the production of images on video displays. Whether video information of a motion picture is processed by a television, video equipment and technology, or a video display, it must be processed by a machine or computer.

<sup>159</sup> Other claims would satisfy this requirement, including claims 8 (reciting “indicating in a video form”), 9-10 (reciting creating a video representation”), and 11 (reciting “creating a first video segment via said video camera” and “storing said motion picture on an information storage medium”). However, as discussed previously, the printed matter doctrine has never been applied to processes, and application to the processes claimed in the present application (claims 1-16) is inappropriate because they do not claim substrates upon which material is recorded.

<sup>160</sup> Again, all limitations in claims 1-16 should be given patentable weight because, as discussed previously, the printed matter doctrine has never been applied to processes, and application to the processes claimed in the present application (claims 1-16) is inappropriate because they do not claim substrates upon which material is recorded.

Applicant respectfully asserts that claims 1-16 should be examined against the prior art, giving full patentable weight to all limitations, and 17-20 should be examined against the prior art, giving full patentable weight to the information contained on the claimed information storage media.

Software patents claiming information-containing substrates are essentially patents on printed matter with no functional relationship to the substrates on which the information is held.<sup>161</sup> Therefore, Applicant respectfully asserts that books, movies, CD-ROMs, DVDs, computer hard drives, etc., are all information-containing substrates that are patentable subject matter that can distinguish over the prior art (for purposes of Sections 102 and 103) based on their information content.

**Note: The Section 103 rejections cited in paragraphs 33-44 of the First Office Action will be addressed later in this Appeal Brief, under the heading Rejections under 35 U.S.C. 103(a) Over Any Movie Recorded on a DVD.**

#### IX. Final Office Action – Responses

It is not clear to Applicant that any new arguments against the patentability of the present claims are presented in the Final Office Action. Paragraphs 4-15 and 20-28, in which some variation of the word “technology” appears at least 33 times, seem to be a very passionate application of the “technological arts” test. However, in Section IV above, Applicant has argued that there is no such “technological arts” test. Whether fictional storylines are “technology” by the Patent Office’s arbitrary standards is irrelevant.

Buried throughout this text also appears to be the argument – explicitly stated in paragraph 41 – that the present application aims to patent an idea in the abstract. (“By attempting to patent the idea for a story, Applicant is attempting to preempt any and all expression of that idea.” (Paragraph 8.)) However, the true test is whether Applicant’s process claims recite a fundamental principle (such as an abstract idea), and, if so, whether they would pre-empt substantially all uses of that fundamental principle if

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<sup>161</sup> Applicant provides a much more detailed analysis of why the printed matter doctrine and the allowability of software patents are incompatible in his article, *Software, Components, and Bad Logic*, incorporated by reference herein.

allowed.<sup>162</sup> In Section VI above, Applicant argued that the pending claims do not recite an abstract idea. Further, even if some of the claims do recite a fundamental principle, Applicant will argue that several of the claims will not pre-empt substantially all uses of that fundamental principle if allowed.

The Patent Office spends a great deal of time addressing how storylines aren't subject to the same sort of "improvement" as "technology." (See, e.g., paragraph 25.) First, to Applicant's knowledge, this is not a valid basis for rejection. Second, what if an inventor conceives of an invention that is independent of all existing prior art and is not an improvement on anything – would the Patent Office deny him a patent? Of course not. The *quid pro quo* purpose of patent law dictates that inventors get rewarded for their *inventions*, not merely for their *improvements*.

In paragraph 42, the Patent Office states that "A plot is an abstract idea. There is no physical substance to it." First, the Federal Circuit in *Bilski* specifically rejected a "physical limitations" test for subject matter eligibility under Section 101.<sup>163</sup> Second, the Patent Office's argument is not an argument at all; it's a conclusion. By picking out pieces of Applicant's claims and calling them "abstract ideas" at its leisure (and without any support in case law), the Patent Office then makes the incredible logical leap that Applicant "seeks to patent the plot or the idea." But imagine a toy inventor who claims in a patent application "a toy for entertaining children, comprising...". The Patent Office might assert that "entertaining" is an abstract idea and, therefore, the claimed *toy* is an unpatentable abstract idea. Clearly such a rejection is impermissible.

Applicant has made a sincere attempt to thoroughly respond to each and every of the rejections in the First and Final Office Actions (recognizing that most or all of the arguments in the Final Office Action are not new). Applicant's papers, "A Potentially New IP: Storyline Patents," "Software, Components, and Bad Logic: Recent Interpretations of Section 271(f)," and "A Patently Novel Plot: Fiction, Information, and Patents in the 21<sup>st</sup> Century" are incorporated by reference to the extent necessary to fully address and respond to each and every of the rejections in the Office Actions.

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<sup>162</sup> *Bilski* at 10.

<sup>163</sup> *Bilski* at 23.

## X. Conclusion

Applicant ends this section by referring to an interesting comment made by the Patent Office in paragraph 25 of the Final Office Action: “The patentee receives a monopoly on any and all expressions of an idea while the public receives virtually nothing in return. The public may receive an idea for a story...”

This is the sort of self-serving contradiction that has almost perfectly characterized the many fear-motivated criticisms Applicant has received in his attempt to patent claims related to fictional storylines. Here is the argument, paraphrased:

If storyline patents are granted,

- Patentees will obtain a HUGE amount of intellectual property: an entire storyline!
- But the public will get hardly anything at all: just a storyline!

*It's time to decide. Are new, nonobvious storylines valuable to American society or not?*

If not, then what's the big deal with issuing patents on worthless property?

But if so, then the patent system can be used to incentivize would-be storyline innovators to *create value for America*. In exchange for a brief 20-year exclusive right, the American public obtains a valuable storyline that it can use and enjoy *forever*.

## Claim 7

All sections under the heading Claims 1-6 and 16 are incorporated herein by reference, except Section VI, which is included below.

## VI. Abstract Idea

In paragraph 22, the Office Action states that a storyline *per se* is an abstract idea. Next, it states that “a storyline [cannot] be transformed into a patentable process merely by reciting it as a process of telling a story,” and cites classic dicta from *Diamond v. Diehr*<sup>164</sup>. What the Office Action leaves out is the immediately preceding sentence: “Similarly, insignificant postsolution activity will not transform an unpatentable principle

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<sup>164</sup> *Diehr* at 187.

into a patentable process.” (Emphasis added.) For example, consider a claim having two steps: a) implementing [unpatentable mathematical formula or abstract idea]; and b) recording results from step a). Chances are good that this would not pass the *Diamond v. Diehr* test because recording results might be considered an “insignificant postsolution activity” to implementing the otherwise unpatentable mathematical formula.

However, claim 7 of the present application does not contain any such abstract idea that is transformed by insignificant postsolution activity. Claim 1 (on which claim 7 depends) recites “indicating a character’s desire...” “indicating said character’s substantial inability...” “indicating that ... said character was an active participant...” and so forth. Indicating desire, for example, is not an abstract idea that exists only in the ether – it is a real activity, a real step, a real procedure that real people perform every day in every city in every country! For example: “I want ice cream!” There’s nothing abstract about this – it is the act of indicating desire. Gravity is an abstract idea. The fact that the binary number 1110 equals 14 in base 10 is an abstract idea. But there is nothing abstract about the act of shouting “I want ice cream!”

Paragraphs 24-25 liken storyline method patents to a mathematical formula found unpatentable in *Gottschalk v. Benson*. Upon first reading this, Applicant felt prepared – armed with a large mug of coffee and all – to determinedly defend storyline patents from this attack, when an incredible realization struck him: there had been no valid attack! It is the Patent Office’s obligation to provide a *prima facie* case against the patentability of storyline methods. The burden, according to MPEP 2100, is on the Patent Office. Not a single shred of evidence is provided in the entire Office Action that the storyline method claims of the present application are “analogous to a mathematical formula.” It is the Patent Office’s obligation to explain why the claimed storyline processes and information storage media are abstract ideas. How is the process recited in claim 7 of the present application any more abstract than the “method of pumping a fluid” claimed in U.S. Patent No. 7,082,750 to Applicant? They’re simply processes reciting specific, definite, non-abstract steps!

In paragraph 41 of the Final Office Action, the Patent Office admits that “There is no post-solution activity in claim 1” and then asserts that “Claim 1 is an abstract idea – period.” Applicant respectfully disagrees with the latter statement.

Section 101<sup>165</sup> includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof...”. In *Diamond v. Chakrabarty*<sup>166</sup>, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria. While Section 101 should be read extremely broadly, the Court reminded the nation that specifically excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas.<sup>167</sup>

The Supreme Court offered precious little guidance on what exactly is an unpatentable “abstract idea.” The Court instructed that while “Congress plainly contemplated that the patent laws would be given wide scope,” exceptions to statutory subject matter under Section 101 include “laws of nature, physical phenomena, and abstract ideas.” As examples, the Court cites “a new mineral discovered in the earth,” “a new plant found in the wild,” Einstein’s “celebrated law that  $E=mc^2$ ,” and Newton’s law of gravity.<sup>168</sup>

None of the Court’s examples are “made by man.” The former two represent naturally occurring objects, while the latter two represent *fundamental mathematical truths* about the universe that were discovered, but not *made*, by humans. The claimed inventions are not fundamental mathematical truths about the universe. Applicant *made* them; he did not merely discover them. The processes did not exist prior to their conception by Applicant. Therefore, the claimed processes are not abstract ideas under *Chakrabarty*.

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<sup>165</sup> 35 U.S.C.

<sup>166</sup> *Chakrabarty* at 308-9.

<sup>167</sup> *Chakrabarty* at 309.

<sup>168</sup> *Id.*

In *Le Roy v. Tatham*<sup>169</sup>, the Court said that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive...”. For example, the electromagnetic force (coupled with the mathematical equations that describe it) is a fundamental truth. It is also an original cause and motive that, for example, causes magnets to attract or repel. The claimed inventions are not fundamental truths, original causes, or motives. They are inventions by Applicant that are neither fundamental nor original to the universe. Therefore, the claimed processes are not abstract ideas under *Le Roy v. Tatham*.

Next, the Federal Circuit stated in *Alappat*<sup>170</sup> that “abstract ideas constitute disembodied concepts or truths which are not ‘useful’ from a practical standpoint standing alone, i.e., they are not ‘useful’ until reduced to some practical application.” *State Street*<sup>171</sup> interpreted *Alappat* to say that “Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”

Applicant respectfully asserts that the claimed processes are not abstract ideas under these definitions. First, a step of “indicating...” (as recited in the claim) is certainly not a “truth” of any kind. “Indicating” is neither true nor false. Second, a step of “indicating...” is not a disembodied concept. For example, “indicating a desire for ice cream,” such as shouting “I want ice cream!” is very specific and embodied. While  $E=mc^2$  may be a disembodied concept, there is nothing disembodied about a specific action, whether it be “drilling,” “lifting,” “transforming,” or “indicating.”

Third, a step of “indicating...” is very useful from a practical standpoint standing alone. For example, “indicating a desire for ice cream” provides useful information to the observers of such indicating, namely that the person so indicating has a desire for ice cream. A person who is “indicating a need for help,” such as shouting “Help!” will find the step of indicating very useful from a practical standpoint standing alone. Claim 7 recites a process of relaying a story having a unique plot, including indicating several elements of the plot. These steps of indicating are useful from a practical standpoint standing alone at least by providing entertainment or information. Therefore, the claimed processes are not abstract ideas under *Alappat*.

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<sup>169</sup> 14 How. 156, 175 (1852).

<sup>170</sup> *Alappat* at footnote 18.

<sup>171</sup> *State Street* at 1373.

Finally, case law suggests that the legal construct of “abstract idea” is directly associated with *mathematical algorithms*. For example, consider *In re Warmerdam*<sup>172</sup>, in which the cited prior art was “a mathematical procedure known as Hilditch Skeletonization method”: “The body of claim 1 recites the steps of ‘locating’ a medial axis, and ‘creating’ a bubble hierarchy. These steps describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic ‘abstract idea.’” (Emphasis added.) The claims were also directed to mathematical formulae in *Arrhythmia Research Technology v. Corazonix Corp.*<sup>173</sup>, which commented on *Diamond v. Diehr*: “The Simson claims are analogous to those upheld in *Diehr*, wherein the Court remarked that the applicants ‘do not seek to patent a mathematical formula [known as the “Arrhenius equation”]. . . . they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process’. 450 U.S. at 187, 209. Simson’s claimed method is similarly limited. The process claims comprise statutory subject matter.” (Emphasis added.)

Further, the Federal Circuit in *Alappat*<sup>174</sup> stated that “Although many, or arguably even all, of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements . . . to produce a useful, concrete, and tangible result.” (Emphasis added.) *State Street*<sup>175</sup> characterized *Alappat* as holding that “data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible result’—the smooth waveform.” (Emphasis added.) Even in *Bilski*<sup>176</sup>, the Federal Circuit struck down the Applicants’ claims as “effectively pre-empt[ing] any application of the

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<sup>172</sup> *Warmerdam* at 1360.

<sup>173</sup> 958 F.2d 1053, 1059 (Fed. Cir. 1992).

<sup>174</sup> *Alappat* at 1544.

<sup>175</sup> *State Street* at 1373.

<sup>176</sup> *Bilski* at 32. Unfortunately, even though the Court asserts that “The true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process” (p. 7), it gave no guidance on how to determine if one is seeking to claim an abstract idea, or even what an abstract idea is. Significantly, it refers to both *Diehr* and *Benson*, in which the claimed processes each involved mathematical algorithms. Only on page 32 does the Court summarily assert, without explanation, that hedging, and the mathematical calculations inherent in hedging, are fundamental principles.

fundamental concept of hedging and mathematical calculations inherent in hedging.”

(Emphasis added.) Other examples demonstrate that the phrase “abstract idea” is associated with mathematical algorithms.<sup>177</sup>

Clearly, the claims pending in the present application have nothing to do with mathematical algorithms. Specifically, steps of “indicating...” the elements of a fictional plot have nothing to do with a “procedure for solving a given type of mathematical problem”<sup>178</sup>. Therefore, the claimed processes are not abstract ideas.

Applicant respectfully submits that the reason for the prohibition against patenting abstract ideas is to prevent fundamental truths that exist independently of human existence (like  $E=mc^2$ ) from being claimed by one person. If a claimed invention was not simply discovered but *created* by a human (and thus wouldn’t have existed but for that human), Applicant respectfully submits that the invention should be examined against prior art for patentability.

A method is a method and should be examined as such.<sup>179</sup> The Supreme Court has made clear that statutory subject matter includes “anything under the sun that is made by man.”<sup>180</sup> Unless the claimed invention is merely a law of nature<sup>181</sup>, a natural phenomenon<sup>182</sup>, a manipulation of basic mathematical constructs<sup>183</sup>, an abstract idea constituting disembodied concepts or truths that are not useful<sup>184</sup>, or an incomprehensible

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<sup>177</sup> For example, in *Parker v. Flook*, the Court resolved the issue of whether the mathematical formula recited in Applicant’s claim constituted an unpatentable abstract idea. 437 U.S. 584, 587 (1978). The Court referred to *Benson*: “In *Benson* we concluded that the process application in fact sought to patent an idea, noting that ‘[the] mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.’ [*Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)].” *Id* at 589. (Emphasis added.) As another example, the Applicant under *In re Schrader* attempted to patent “a novel way of conducting auctions,” asserting that he did not claim an abstract idea because there was no mathematical algorithm implicit in the claim. The Court disagreed because a mathematical algorithm is a “‘procedure for solving a given type of mathematical problem’ ... [and the claimed] process, although expressed in general terms, is within or similar to a class of well-known mathematical optimization procedures commonly applied to business problems called linear programming.” 22 F.3d 290, 293 (Fed. Cir. 1994). (Emphasis added.)

<sup>178</sup> *In re Schrader*, 22 F.3d 290, 293 (Fed. Cir. 1994).

<sup>179</sup> *State Street* at 1377.

<sup>180</sup> *Chakrabarty* at 309.

<sup>181</sup> *Id.*

<sup>182</sup> *Id.*

<sup>183</sup> *Warmerdam* at 1360.

<sup>184</sup> *State Street* at 1373.

claim to an abstract energy state<sup>185</sup>, it is patentable subject matter. There is simply no statutory or common law exempting from patentability a useful method for producing entertainment.

Other claim forms, besides methods, may also be patentable subject matter, such as an article of manufacture containing the storyline. Consider a claim—which may be dubbed a “storyline article claim”—to a storage medium, such as a DVD or video cassette:

A machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story having a unique plot, the story involving characters and having a timeline, the process comprising:

indicating that a first character...

The above claim format is substantively indistinguishable from the thousands of computer program product claims allowed by the Patent Office since *In re Beauregard*. If a computer disk containing a functionally unrelated but independently patentable software is patentable, should not a DVD containing an independently patentable storyline (in the form of a method executed by a consumer via her DVD player) also be patentable? Further, as previously discussed, a book-bound fictional novel containing a patentable method is probably patentable simply because the inscriptions in the pages of a novel just *are* a computer program—given a computer programmed to read prose as a software language. A patentable software program embodied in a tangible medium is patentable. Analogously, a patentable storyline method embodied in a tangible medium—e.g., a novel—may also be patentable subject matter.

Further, the claimed processes do not claim *mental processes*, nor did the Patent Office contend that they claim mental processes. For example, “indicating...” (as recited

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<sup>185</sup> *Bonczyk* at 911.

in claim 1, on which claim 7 depends) is an active step that is not a “process of human thinking” and does not “depend... on human intelligence alone.”<sup>186</sup>

If claim 1 (upon which claim 7 depends) or 7 is found to recite an abstract idea<sup>187</sup>, Applicant agrees that it would be subject to the subject matter test under *Bilski*. (Applicant makes the following arguments with reference to the attached flowchart for determining patent eligible subject matter under *Bilski*.) If so, Applicant argues that claim 7, which recites that each of the steps of indicating comprises indicating in a written form, would not pre-empt substantially all uses of that abstract idea for the following reasons.

First, the process of claim 7 transforms an article into a different state or thing, because it involves the transformation of a physical object or substance or an electronic representative thereof.<sup>188</sup> No matter how the steps of indicating in a written form are performed, some physical object or substance or an electronic representative thereof must, necessarily, be transformed. If, for example, the indicating is performed using paper and pen, then the physical object (paper) is transformed by the pen’s ink. If, for example, the indicating is performed by typing into a computer, an electronic signal representative of paper (that produces a typewritten appearance on a computer monitor) is transformed by the typing. In other words, claim 7, because it requires indicating in a written form, requires a transformation of the real world in the form of a physical object or substance or an electronic representative thereof.

Next, the transformation imposes meaningful limits on the claim’s scope.<sup>189</sup> There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. By limiting the claim’s scope to indicating in a written form, the transformation imposes meaningful limits on the claim’s scope.

Finally, because the transformation does not constitute mere insignificant extra-solution activity, it is central to the purpose of the claimed process.<sup>190</sup> An example in

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<sup>186</sup> *Comiskey* at 1377-8.

<sup>187</sup> In footnote 5, *Bilski* defines “fundamental principles” as “laws of nature, natural phenomena, and abstract ideas.” It is not disputed that none of the claims recite laws of nature or natural phenomena.

<sup>188</sup> *Bilski* at 28.

<sup>189</sup> *Bilski* at 24.

<sup>190</sup> *Bilski* at 24.

*Bilski* of an insignificant extra-solution activity is a “data-gathering step” in an algorithm “because every algorithm inherently requires the gathering of data points.”<sup>191</sup> There is nothing insignificant about limiting the steps of indicating to “indicating in a written form,” as claimed in claim 7, because it is not true that all steps of indicating inherently require indicating in a written form. Another example in *Bilski* of an insignificant extra-solution activity is “a step of recording bids” in a method of conducting an auction,<sup>192</sup> presumably because it adds little if anything to the claimed process. After all, how can one conduct an auction without recording bids? Again, there is nothing insignificant about limiting the steps of indicating to “indicating in a written form,” as claimed in claim 7, because it is quite possible to indicate without indicating in a written form. In other words, Applicant respectfully asserts that the significant and meaningful limitations in claim 7 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>193</sup>

Therefore, even if claim 7 is found to recite an abstract idea, it is patent-eligible subject matter because it would not pre-empt substantially all uses of that abstract idea if allowed.

### Claims 8 and 10

All sections under the heading Claims 1-6 and 16 are incorporated herein by reference, except Section VI, which is included below.

### VI. Abstract Idea

In paragraph 22, the Office Action states that a storyline *per se* is an abstract idea. Next, it states that “a storyline [cannot] be transformed into a patentable process merely by reciting it as a process of telling a story,” and cites classic dicta from *Diamond v. Diehr*<sup>194</sup>. What the Office Action leaves out is the immediately preceding sentence: “Similarly, insignificant postsolution activity will not transform an unpatentable principle

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<sup>191</sup> *Bilski* at 27.

<sup>192</sup> *Bilski* at 27.

<sup>193</sup> *Bilski* at 26.

<sup>194</sup> *Diehr* at 187.

into a patentable process.” (Emphasis added.) For example, consider a claim having two steps: a) implementing [unpatentable mathematical formula or abstract idea]; and b) recording results from step a). Chances are good that this would not pass the *Diamond v. Diehr* test because recording results might be considered an “insignificant postsolution activity” to implementing the otherwise unpatentable mathematical formula.

However, claim 8 of the present application does not contain any such abstract idea that is transformed by insignificant postsolution activity. Claim 1 (on which claim 8 depends) recites “indicating a character’s desire...” “indicating said character’s substantial inability...” “indicating that ... said character was an active participant...” and so forth. Indicating desire, for example, is not an abstract idea that exists only in the ether – it is a real activity, a real step, a real procedure that real people perform every day in every city in every country! For example: “I want ice cream!” There’s nothing abstract about this – it is the act of indicating desire. Gravity is an abstract idea. The fact that the binary number 1110 equals 14 in base 10 is an abstract idea. But there is nothing abstract about the act of shouting “I want ice cream!”

Paragraphs 24-25 liken storyline method patents to a mathematical formula found unpatentable in *Gottschalk v. Benson*. Upon first reading this, Applicant felt prepared – armed with a large mug of coffee and all – to determinedly defend storyline patents from this attack, when an incredible realization struck him: there had been no valid attack! It is the Patent Office’s obligation to provide a *prima facie* case against the patentability of storyline methods. The burden, according to MPEP 2100, is on the Patent Office. Not a single shred of evidence is provided in the entire Office Action that the storyline method claims of the present application are “analogous to a mathematical formula.” It is the Patent Office’s obligation to explain why the claimed storyline processes and information storage media are abstract ideas. How is the process recited in claim 8 of the present application any more abstract than the “method of pumping a fluid” claimed in U.S. Patent No. 7,082,750 to Applicant? They’re simply processes reciting specific, definite, non-abstract steps!

In paragraph 41 of the Final Office Action, the Patent Office admits that “There is no post-solution activity in claim 1” and then asserts that “Claim 1 is an abstract idea – period.” Applicant respectfully disagrees with the latter statement.

Section 101<sup>195</sup> includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof...”. In *Diamond v. Chakrabarty*<sup>196</sup>, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria. While Section 101 should be read extremely broadly, the Court reminded the nation that specifically excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas.<sup>197</sup>

The Supreme Court offered precious little guidance on what exactly is an unpatentable “abstract idea.” The Court instructed that while “Congress plainly contemplated that the patent laws would be given wide scope,” exceptions to statutory subject matter under Section 101 include “laws of nature, physical phenomena, and abstract ideas.” As examples, the Court cites “a new mineral discovered in the earth,” “a new plant found in the wild,” Einstein’s “celebrated law that  $E=mc^2$ ,” and Newton’s law of gravity.<sup>198</sup>

None of the Court’s examples are “made by man.” The former two represent naturally occurring objects, while the latter two represent *fundamental mathematical truths* about the universe that were discovered, but not *made*, by humans. The claimed inventions are not fundamental mathematical truths about the universe. Applicant *made* them; he did not merely discover them. The processes did not exist prior to their conception by Applicant. Therefore, the claimed processes are not abstract ideas under *Chakrabarty*.

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<sup>195</sup> 35 U.S.C.

<sup>196</sup> *Chakrabarty* at 308-9.

<sup>197</sup> *Chakrabarty* at 309.

<sup>198</sup> *Id.*

In *Le Roy v. Tatham*<sup>199</sup>, the Court said that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive...”. For example, the electromagnetic force (coupled with the mathematical equations that describe it) is a fundamental truth. It is also an original cause and motive that, for example, causes magnets to attract or repel. The claimed inventions are not fundamental truths, original causes, or motives. They are inventions by Applicant that are neither fundamental nor original to the universe. Therefore, the claimed processes are not abstract ideas under *Le Roy v. Tatham*.

Next, the Federal Circuit stated in *Alappat*<sup>200</sup> that “abstract ideas constitute disembodied concepts or truths which are not ‘useful’ from a practical standpoint standing alone, i.e., they are not ‘useful’ until reduced to some practical application.” *State Street*<sup>201</sup> interpreted *Alappat* to say that “Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”

Applicant respectfully asserts that the claimed processes are not abstract ideas under these definitions. First, a step of “indicating...” (as recited in the claim) is certainly not a “truth” of any kind. “Indicating” is neither true nor false. Second, a step of “indicating...” is not a disembodied concept. For example, “indicating a desire for ice cream,” such as shouting “I want ice cream!” is very specific and embodied. While  $E=mc^2$  may be a disembodied concept, there is nothing disembodied about a specific action, whether it be “drilling,” “lifting,” “transforming,” or “indicating.”

Third, a step of “indicating...” is very useful from a practical standpoint standing alone. For example, “indicating a desire for ice cream” provides useful information to the observers of such indicating, namely that the person so indicating has a desire for ice cream. A person who is “indicating a need for help,” such as shouting “Help!” will find the step of indicating very useful from a practical standpoint standing alone. Claim 8 recites a process of relaying a story having a unique plot, including indicating several elements of the plot. These steps of indicating are useful from a practical standpoint standing alone at least by providing entertainment or information. Therefore, the claimed processes are not abstract ideas under *Alappat*.

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<sup>199</sup> 14 How. 156, 175 (1852).

<sup>200</sup> *Alappat* at footnote 18.

<sup>201</sup> *State Street* at 1373.

Finally, case law suggests that the legal construct of “abstract idea” is directly associated with *mathematical algorithms*. For example, consider *In re Warmerdam*<sup>202</sup>, in which the cited prior art was “a mathematical procedure known as Hilditch Skeletonization method”: “The body of claim 1 recites the steps of ‘locating’ a medial axis, and ‘creating’ a bubble hierarchy. These steps describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic ‘abstract idea.’” (Emphasis added.) The claims were also directed to mathematical formulae in *Arrhythmia Research Technology v. Corazonix Corp.*<sup>203</sup>, which commented on *Diamond v. Diehr*: “The Simson claims are analogous to those upheld in *Diehr*, wherein the Court remarked that the applicants ‘do not seek to patent a mathematical formula [known as the “Arrhenius equation”]. . . . they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process’. 450 U.S. at 187, 209. Simson’s claimed method is similarly limited. The process claims comprise statutory subject matter.” (Emphasis added.)

Further, the Federal Circuit in *Alappat*<sup>204</sup> stated that “Although many, or arguably even all, of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements . . . to produce a useful, concrete, and tangible result.” (Emphasis added.) *State Street*<sup>205</sup> characterized *Alappat* as holding that “data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible result’—the smooth waveform.” (Emphasis added.) Even in *Bilski*<sup>206</sup>, the Federal Circuit struck down the Applicants’ claims as “effectively pre-empt[ing] any application of the

<sup>202</sup> *Warmerdam* at 1360.

<sup>203</sup> 958 F.2d 1053, 1059 (Fed. Cir. 1992).

<sup>204</sup> *Alappat* at 1544.

<sup>205</sup> *State Street* at 1373.

<sup>206</sup> *Bilski* at 32. Unfortunately, even though the Court asserts that “The true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process” (p. 7), it gave no guidance on how to determine if one is seeking to claim an abstract idea, or even what an abstract idea is. Significantly, it refers to both *Diehr* and *Benson*, in which the claimed processes each involved mathematical algorithms. Only on page 32 does the Court summarily assert, without explanation, that hedging, and the mathematical calculations inherent in hedging, are fundamental principles.

fundamental concept of hedging and mathematical calculations inherent in hedging.”

(Emphasis added.) Other examples demonstrate that the phrase “abstract idea” is associated with mathematical algorithms.<sup>207</sup>

Clearly, the claims pending in the present application have nothing to do with mathematical algorithms. Specifically, steps of “indicating...” the elements of a fictional plot have nothing to do with a “procedure for solving a given type of mathematical problem”<sup>208</sup>. Therefore, the claimed processes are not abstract ideas.

Applicant respectfully submits that the reason for the prohibition against patenting abstract ideas is to prevent fundamental truths that exist independently of human existence (like  $E=mc^2$ ) from being claimed by one person. If a claimed invention was not simply discovered but *created* by a human (and thus wouldn’t have existed but for that human), Applicant respectfully submits that the invention should be examined against prior art for patentability.

A method is a method and should be examined as such.<sup>209</sup> The Supreme Court has made clear that statutory subject matter includes “anything under the sun that is made by man.”<sup>210</sup> Unless the claimed invention is merely a law of nature<sup>211</sup>, a natural phenomenon<sup>212</sup>, a manipulation of basic mathematical constructs<sup>213</sup>, an abstract idea constituting disembodied concepts or truths that are not useful<sup>214</sup>, or an incomprehensible

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<sup>207</sup> For example, in *Parker v. Flook*, the Court resolved the issue of whether the mathematical formula recited in Applicant’s claim constituted an unpatentable abstract idea. 437 U.S. 584, 587 (1978). The Court referred to *Benson*: “In *Benson* we concluded that the process application in fact sought to patent an idea, noting that ‘[the] mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.’ [*Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)].” *Id* at 589. (Emphasis added.) As another example, the Applicant under *In re Schrader* attempted to patent “a novel way of conducting auctions,” asserting that he did not claim an abstract idea because there was no mathematical algorithm implicit in the claim. The Court disagreed because a mathematical algorithm is a “‘procedure for solving a given type of mathematical problem’ ... [and the claimed] process, although expressed in general terms, is within or similar to a class of well-known mathematical optimization procedures commonly applied to business problems called linear programming.” 22 F.3d 290, 293 (Fed. Cir. 1994). (Emphasis added.)

<sup>208</sup> *In re Schrader*, 22 F.3d 290, 293 (Fed. Cir. 1994).

<sup>209</sup> *State Street* at 1377.

<sup>210</sup> *Chakrabarty* at 309.

<sup>211</sup> *Id.*

<sup>212</sup> *Id.*

<sup>213</sup> *Warmerdam* at 1360.

<sup>214</sup> *State Street* at 1373.

claim to an abstract energy state<sup>215</sup>, it is patentable subject matter. There is simply no statutory or common law exempting from patentability a useful method for producing entertainment.

Other claim forms, besides methods, may also be patentable subject matter, such as an article of manufacture containing the storyline. Consider a claim—which may be dubbed a “storyline article claim”—to a storage medium, such as a DVD or video cassette:

A machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story having a unique plot, the story involving characters and having a timeline, the process comprising:

indicating that a first character...

The above claim format is substantively indistinguishable from the thousands of computer program product claims allowed by the Patent Office since *In re Beauregard*. If a computer disk containing a functionally unrelated but independently patentable software is patentable, should not a DVD containing an independently patentable storyline (in the form of a method executed by a consumer via her DVD player) also be patentable? Further, as previously discussed, a book-bound fictional novel containing a patentable method is probably patentable simply because the inscriptions in the pages of a novel just *are* a computer program—given a computer programmed to read prose as a software language. A patentable software program embodied in a tangible medium is patentable. Analogously, a patentable storyline method embodied in a tangible medium—e.g., a novel—may also be patentable subject matter.

Further, the claimed processes do not claim *mental processes*, nor did the Patent Office contend that they claim mental processes. For example, “indicating...” (as recited

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<sup>215</sup> *Bonczyk* at 911.

in claim 1, on which claim 8 depends) is an active step that is not a “process of human thinking” and does not “depend... on human intelligence alone.”<sup>216</sup>

If claim 1 (upon which claim 8 depends) or 8 is found to recite an abstract idea<sup>217</sup>, Applicant agrees that it would be subject to the subject matter test under *Bilski*. (Applicant makes the following arguments with reference to the attached flowchart for determining patent eligible subject matter under *Bilski*.) If so, Applicant argues that claim 8, which recites that each of the steps of indicating comprises indicating in a video form, would not pre-empt substantially all uses of that abstract idea for the following reasons.

First, the process is inherently tied to a particular machine or apparatus<sup>218</sup>. *The American Heritage® Dictionary of the English Language*<sup>219</sup> defines the word “video” as: adj. 1. Of or relating to television, esp. to televised images. 2. Of or relating to videotaped productions or videotape equipment and technology. 3. Of or relating to the production of images on video displays. Whether indicating in a video form (as claimed in claim 8) utilizes television, video equipment and technology, or video displays (together referred to as “video machines”), at least one of these particular machines must be used to indicate in a video form. Thus, the process is inherently tied to at least one of these particular video machines.<sup>220</sup>

Next, the fundamental principle (to the extent claim 1 or 8 recites one) has utility other than operating on the particular machine.<sup>221</sup> Further, the claim’s tie to the particular machine reduces the preemptive footprint of the claim<sup>222</sup> and imposes meaningful limits on the claim’s scope<sup>223</sup>. There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. Thus, the fundamental principle (to the extent claim 1 or 8 recites one) has utility other than merely performing the steps of indicating in a video form.

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<sup>216</sup> *Comiskey* at 1377-8.

<sup>217</sup> In footnote 5, *Bilski* defines “fundamental principles” as “laws of nature, natural phenomena, and abstract ideas.” It is not disputed that none of the claims recite laws of nature or natural phenomena.

<sup>218</sup> *Bilski* at 10.

<sup>219</sup> Fourth Edition ©2000 by Houghton Mifflin Company. Updated in 2003.

<sup>220</sup> This limitation is to be contrasted with “indicating in a visual form,” which would not necessarily require a video machine.

<sup>221</sup> *Bilski* at 13.

<sup>222</sup> *Bilski* at 13.

<sup>223</sup> *Bilski* at 24.

Further, by limiting the claim's scope to indicating in a video form, the claim's tie to the particular machine reduces the preemptive footprint of the claim and imposes meaningful limits on the claim's scope.

Finally, the particular machine to which claim 8 is tied does not constitute mere insignificant extra-solution activity.<sup>224</sup> An example in *Bilski* of an insignificant extra-solution activity is a “data-gathering step” in an algorithm “because every algorithm inherently requires the gathering of data points.”<sup>225</sup> There is nothing insignificant about limiting the steps of indicating to “indicating in a video form,” as claimed in claim 8, because it is not true that all steps of indicating inherently require indicating in a video form. Another example in *Bilski* of an insignificant extra-solution activity is “a step of recording bids” in a method of conducting an auction,<sup>226</sup> presumably because it adds little if anything to the claimed process. After all, how can one conduct an auction without recording bids? Again, there is nothing insignificant about limiting the steps of indicating to “indicating in a video form,” as claimed in claim 8, because it is quite possible to indicate without indicating in a video form. In other words, Applicant respectfully asserts that the significant and meaningful limitations in claim 8 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>227</sup>

Next, even if claim 8 is found to recite an abstract idea, and even if it is found not to be tied to a particular machine or apparatus, the process of claim 8 transforms an article into a different state or thing, because it involves the transformation of a physical object or substance or an electronic representative thereof.<sup>228</sup> In *Abele*<sup>229</sup>, the CCPA held patentable a claim that specified the transformation of raw data representing physical and tangible objects (the structure of body tissues) into a particular visual depiction on a display. In *Bilski*, the Federal Circuit clarified that “the electronic transformation of the data itself into a visual depiction” was sufficient to render the claimed invention statutory subject matter under Section 101.<sup>230</sup> In claim 8, because indicating in a video form requires the use of a video machine, such as a video display, claim 8 involves the

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<sup>224</sup> *Bilski* at 17.

<sup>225</sup> *Bilski* at 27.

<sup>226</sup> *Bilski* at 27.

<sup>227</sup> *Bilski* at 26.

<sup>228</sup> *Bilski* at 28.

<sup>229</sup> 684 F.2d at 909.

<sup>230</sup> *Bilski* at 26.

transformation of video information/data that ultimately results in a visual depiction. Therefore, indicating in a video form, as claimed in claim 8, involves the same sort of patent-eligible transformation of data as that in *Abele*.

Further, no matter how the steps of indicating in a video form are performed, some physical object or substance or an electronic representative thereof must, necessarily, be transformed. If, for example, the indicating is performed using a video camera, then the claim involves the transformation of an electronic signal representative of a physical object.<sup>231</sup> If, for example, the indicating is performed using a video display, then the claim involves the transformation of an electronic signal representative of a physical object.<sup>232</sup> In other words, claim 8, because it requires indicating in a video form, requires a transformation of the real world in the form of a physical object or substance or an electronic representative thereof.

Next, the transformation imposes meaningful limits on the claim's scope.<sup>233</sup> There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. By limiting the claim's scope to indicating in a video form, the transformation imposes meaningful limits on the claim's scope.

Finally, because the transformation does not constitute mere insignificant extra-solution activity, it is central to the purpose of the claimed process.<sup>234</sup> An example in *Bilski* of an insignificant extra-solution activity is a "data-gathering step" in an algorithm "because every algorithm inherently requires the gathering of data points."<sup>235</sup> There is nothing insignificant about limiting the steps of indicating to "indicating in a video form," as claimed in claim 8, because it is not true that all steps of indicating inherently require indicating in a video form. Another example in *Bilski* of an insignificant extra-solution activity is "a step of recording bids" in a method of conducting an auction,<sup>236</sup> presumably because it adds little if anything to the claimed process. After all, how can

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<sup>231</sup> For example, if a video camera is used to film an actor performing the steps of indicating, then the camera creates and transforms electronic data representative of the actor.

<sup>232</sup> For example, the video display may electronically transform data representing an actor performing the steps of indicating into a visual depiction on the display.

<sup>233</sup> *Bilski* at 24.

<sup>234</sup> *Bilski* at 24.

<sup>235</sup> *Bilski* at 27.

<sup>236</sup> *Bilski* at 27.

one conduct an auction without recording bids? Again, there is nothing insignificant about limiting the steps of indicating to “indicating in a video form,” as claimed in claim 8, because it is quite possible to indicate without indicating in a video form. In other words, Applicant respectfully asserts that the significant and meaningful limitations in claim 8 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>237</sup>

Therefore, even if claim 8 is found to recite an abstract idea, it is patent-eligible subject matter because it would not pre-empt substantially all uses of that abstract idea if allowed.

Claim 10 recites steps of “creating a video representation” and is believed to be patent-eligible subject matter for at least the same reasons as claim 8.

### Claim 9

All sections under the heading Claims 1-6 and 16 are incorporated herein by reference, except Section VI, which is included below.

### VI. Abstract Idea

In paragraph 22, the Office Action states that a storyline *per se* is an abstract idea. Next, it states that “a storyline [cannot] be transformed into a patentable process merely by reciting it as a process of telling a story,” and cites classic dicta from *Diamond v. Diehr*<sup>238</sup>. What the Office Action leaves out is the immediately preceding sentence: “Similarly, insignificant postsolution activity will not transform an unpatentable principle into a patentable process.” (Emphasis added.) For example, consider a claim having two steps: a) implementing [unpatentable mathematical formula or abstract idea]; and b) recording results from step a). Chances are good that this would not pass the *Diamond v. Diehr* test because recording results might be considered an “insignificant postsolution activity” to implementing the otherwise unpatentable mathematical formula.

However, claim 9 of the present application does not contain any such abstract idea that is transformed by insignificant postsolution activity. Claim 1 (on which claim 9

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<sup>237</sup> *Bilski* at 26.

<sup>238</sup> *Diehr* at 187.

depends) recites “indicating a character’s desire...” “indicating said character’s substantial inability...” “indicating that ... said character was an active participant...” and so forth. Indicating desire, for example, is not an abstract idea that exists only in the ether – it is a real activity, a real step, a real procedure that real people perform every day in every city in every country! For example: “I want ice cream!” There’s nothing abstract about this – it is the act of indicating desire. Gravity is an abstract idea. The fact that the binary number 1110 equals 14 in base 10 is an abstract idea. But there is nothing abstract about the act of shouting “I want ice cream!”

Paragraphs 24-25 liken storyline method patents to a mathematical formula found unpatentable in *Gottschalk v. Benson*. Upon first reading this, Applicant felt prepared – armed with a large mug of coffee and all – to determinedly defend storyline patents from this attack, when an incredible realization struck him: there had been no valid attack! It is the Patent Office’s obligation to provide a *prima facie* case against the patentability of storyline methods. The burden, according to MPEP 2100, is on the Patent Office. Not a single shred of evidence is provided in the entire Office Action that the storyline method claims of the present application are “analogous to a mathematical formula.” It is the Patent Office’s obligation to explain why the claimed storyline processes and information storage media are abstract ideas. How is the process recited in claim 9 of the present application any more abstract than the “method of pumping a fluid” claimed in U.S. Patent No. 7,082,750 to Applicant? They’re simply processes reciting specific, definite, non-abstract steps!

In paragraph 41 of the Final Office Action, the Patent Office admits that “There is no post-solution activity in claim 1” and then asserts that “Claim 1 is an abstract idea – period.” Applicant respectfully disagrees with the latter statement.

Section 101<sup>239</sup> includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof...”. In *Diamond v. Chakrabarty*<sup>240</sup>, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did

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<sup>239</sup> 35 U.S.C.

<sup>240</sup> *Chakrabarty* at 308-9.

not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria. While Section 101 should be read extremely broadly, the Court reminded the nation that specifically excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas.<sup>241</sup>

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None of the Court’s examples are “made by man.” The former two represent naturally occurring objects, while the latter two represent *fundamental mathematical truths* about the universe that were discovered, but not *made*, by humans. The claimed inventions are not fundamental mathematical truths about the universe. Applicant *made* them; he did not merely discover them. The processes did not exist prior to their conception by Applicant. Therefore, the claimed processes are not abstract ideas under *Chakrabarty*.

In *Le Roy v. Tatham*<sup>243</sup>, the Court said that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive...”. For example, the electromagnetic force (coupled with the mathematical equations that describe it) is a fundamental truth. It is also an original cause and motive that, for example, causes magnets to attract or repel. The claimed inventions are not fundamental truths, original causes, or motives. They are inventions by Applicant that are neither fundamental nor original to the universe. Therefore, the claimed processes are not abstract ideas under *Le Roy v. Tatham*.

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<sup>241</sup> *Chakrabarty* at 309.

<sup>242</sup> *Id.*

<sup>243</sup> 14 How. 156, 175 (1852).

Next, the Federal Circuit stated in *Alappat*<sup>244</sup> that “abstract ideas constitute disembodied concepts or truths which are not ‘useful’ from a practical standpoint standing alone, i.e., they are not ‘useful’ until reduced to some practical application.” *State Street*<sup>245</sup> interpreted *Alappat* to say that “Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”

Applicant respectfully asserts that the claimed processes are not abstract ideas under these definitions. First, a step of “indicating...” (as recited in the claim) is certainly not a “truth” of any kind. “Indicating” is neither true nor false. Second, a step of “indicating...” is not a disembodied concept. For example, “indicating a desire for ice cream,” such as shouting “I want ice cream!” is very specific and embodied. While  $E=mc^2$  may be a disembodied concept, there is nothing disembodied about a specific action, whether it be “drilling,” “lifting,” “transforming,” or “indicating.”

Third, a step of “indicating...” is very useful from a practical standpoint standing alone. For example, “indicating a desire for ice cream” provides useful information to the observers of such indicating, namely that the person so indicating has a desire for ice cream. A person who is “indicating a need for help,” such as shouting “Help!” will find the step of indicating very useful from a practical standpoint standing alone. Claim 9 recites a process of relaying a story having a unique plot, including indicating several elements of the plot. These steps of indicating are useful from a practical standpoint standing alone at least by providing entertainment or information. Therefore, the claimed processes are not abstract ideas under *Alappat*.

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<sup>244</sup> *Alappat* at footnote 18.

<sup>245</sup> *State Street* at 1373.

<sup>246</sup> *Warmerdam* at 1360.

*Arrhythmia Research Technology v. Corazonix Corp.*<sup>247</sup>, which commented on *Diamond v. Diehr*: “The Simson claims are analogous to those upheld in *Diehr*, wherein the Court remarked that the applicants ‘do not seek to patent a mathematical formula [known as the “Arrhenius equation”]. . . . they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process’. 450 U.S. at 187, 209. Simson’s claimed method is similarly limited. The process claims comprise statutory subject matter.” (Emphasis added.)

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<sup>247</sup> 958 F.2d 1053, 1059 (Fed. Cir. 1992).

<sup>248</sup> *Alappat* at 1544.

<sup>249</sup> *State Street* at 1373.

<sup>250</sup> *Bilski* at 32. Unfortunately, even though the Court asserts that “The true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process” (p. 7), it gave no guidance on how to determine if one is seeking to claim an abstract idea, or even what an abstract idea is. Significantly, it refers to both *Diehr* and *Benson*, in which the claimed processes each involved mathematical algorithms. Only on page 32 does the Court summarily assert, without explanation, that hedging, and the mathematical calculations inherent in hedging, are fundamental principles.

<sup>251</sup> For example, in *Parker v. Flook*, the Court resolved the issue of whether the mathematical formula recited in Applicant’s claim constituted an unpatentable abstract idea. 437 U.S. 584, 587 (1978). The Court referred to *Benson*: “In *Benson* we concluded that the process application in fact sought to patent an idea, noting that ‘[the] mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.’ [*Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)].” *Id* at 589. (Emphasis added.) As another example, the Applicant under *In re Schrader* attempted to patent “a novel way of conducting

Clearly, the claims pending in the present application have nothing to do with mathematical algorithms. Specifically, steps of “indicating...” the elements of a fictional plot have nothing to do with a “procedure for solving a given type of mathematical problem”<sup>252</sup>. Therefore, the claimed processes are not abstract ideas.

Applicant respectfully submits that the reason for the prohibition against patenting abstract ideas is to prevent fundamental truths that exist independently of human existence (like E=mc<sup>2</sup>) from being claimed by one person. If a claimed invention was not simply discovered but *created* by a human (and thus wouldn’t have existed but for that human), Applicant respectfully submits that the invention should be examined against prior art for patentability.

A method is a method and should be examined as such.<sup>253</sup> The Supreme Court has made clear that statutory subject matter includes “anything under the sun that is made by man.”<sup>254</sup> Unless the claimed invention is merely a law of nature<sup>255</sup>, a natural phenomenon<sup>256</sup>, a manipulation of basic mathematical constructs<sup>257</sup>, an abstract idea constituting disembodied concepts or truths that are not useful<sup>258</sup>, or an incomprehensible claim to an abstract energy state<sup>259</sup>, it is patentable subject matter. There is simply no statutory or common law exempting from patentability a useful method for producing entertainment.

Other claim forms, besides methods, may also be patentable subject matter, such as an article of manufacture containing the storyline. Consider a claim—which may be dubbed a “storyline article claim”—to a storage medium, such as a DVD or video cassette:

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auctions,” asserting that he did not claim an abstract idea because there was no mathematical algorithm implicit in the claim. The Court disagreed because a mathematical algorithm is a “‘procedure for solving a given type of mathematical problem’ ... [and the claimed] process, although expressed in general terms, is within or similar to a class of well-known mathematical optimization procedures commonly applied to business problems called linear programming.” 22 F.3d 290, 293 (Fed. Cir. 1994). (Emphasis added.)

<sup>252</sup> *In re Schrader*, 22 F.3d 290, 293 (Fed. Cir. 1994).

<sup>253</sup> *State Street* at 1377.

<sup>254</sup> *Chakrabarty* at 309.

<sup>255</sup> *Id.*

<sup>256</sup> *Id.*

<sup>257</sup> *Warmerdam* at 1360.

<sup>258</sup> *State Street* at 1373.

<sup>259</sup> *Bonczyk* at 911.

A machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story having a unique plot, the story involving characters and having a timeline, the process comprising:

indicating that a first character...

The above claim format is substantively indistinguishable from the thousands of computer program product claims allowed by the Patent Office since *In re Beauregard*. If a computer disk containing a functionally unrelated but independently patentable software is patentable, should not a DVD containing an independently patentable storyline (in the form of a method executed by a consumer via her DVD player) also be patentable? Further, as previously discussed, a book-bound fictional novel containing a patentable method is probably patentable simply because the inscriptions in the pages of a novel just *are* a computer program—given a computer programmed to read prose as a software language. A patentable software program embodied in a tangible medium is patentable. Analogously, a patentable storyline method embodied in a tangible medium—e.g., a novel—may also be patentable subject matter.

Further, the claimed processes do not claim *mental processes*, nor did the Patent Office contend that they claim mental processes. For example, “indicating...” (as recited in claim 1, on which claim 9 depends) is an active step that is not a “process of human thinking” and does not “depend... on human intelligence alone.”<sup>260</sup>

If claim 1 (upon which claim 9 depends) or 9 is found to recite an abstract idea<sup>261</sup>, Applicant agrees that it would be subject to the subject matter test under *Bilski*. (Applicant makes the following arguments with reference to the attached flowchart for determining patent eligible subject matter under *Bilski*.) If so, Applicant argues that claim 9, which recites steps of displaying a video representation, would not pre-empt substantially all uses of that abstract idea for the following reasons.

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<sup>260</sup> *Comiskey* at 1377-8.

<sup>261</sup> In footnote 5, *Bilski* defines “fundamental principles” as “laws of nature, natural phenomena, and abstract ideas.” It is not disputed that none of the claims recite laws of nature or natural phenomena.

First, the process is inherently tied to a particular machine or apparatus<sup>262</sup>. *The American Heritage® Dictionary of the English Language*<sup>263</sup> defines the word “video” as: adj. 1. Of or relating to television, esp. to televised images. 2. Of or relating to videotaped productions or videotape equipment and technology. 3. Of or relating to the production of images on video displays. Whether displaying a video representation (as claimed in claim 9) utilizes television, video equipment and technology, or video displays (together referred to as “video machines”), at least one of these particular machines must be used to display a video representation. Thus, the process is inherently tied to at least one of these particular video machines.<sup>264</sup>

Next, the fundamental principle (to the extent claim 1 or 9 recites one) has utility other than operating on the particular machine.<sup>265</sup> Further, the claim’s tie to the particular machine reduces the preemptive footprint of the claim<sup>266</sup> and imposes meaningful limits on the claim’s scope<sup>267</sup>. There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. Thus, the fundamental principle (to the extent claim 1 or 9 recites one) has utility other than merely performing the steps of displaying a video representation. Further, by limiting the claim’s scope to displaying video representations, the claim’s tie to the particular machine reduces the preemptive footprint of the claim and imposes meaningful limits on the claim’s scope.

Finally, the particular machine to which claim 9 is tied does not constitute mere insignificant extra-solution activity.<sup>268</sup> An example in *Bilski* of an insignificant extra-solution activity is a “data-gathering step” in an algorithm “because every algorithm inherently requires the gathering of data points.”<sup>269</sup> There is nothing insignificant about adding the steps of “displaying a video representation,” as claimed in claim 9, because it is not true that all steps of indicating inherently require displaying a video representation. Another example in *Bilski* of an insignificant extra-solution activity is “a step of

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<sup>262</sup> *Bilski* at 10.

<sup>263</sup> Fourth Edition ©2000 by Houghton Mifflin Company. Updated in 2003.

<sup>264</sup> This limitation is to be contrasted with “indicating in a visual form,” which would not necessarily require a video machine.

<sup>265</sup> *Bilski* at 13.

<sup>266</sup> *Bilski* at 13.

<sup>267</sup> *Bilski* at 24.

<sup>268</sup> *Bilski* at 17.

<sup>269</sup> *Bilski* at 27.

recording bids” in a method of conducting an auction,<sup>270</sup> presumably because it adds little if anything to the claimed process. After all, how can one conduct an auction without recording bids? Again, there is nothing insignificant about adding the steps of “displaying a video representation,” as claimed in claim 9, because it is quite possible to indicate something without displaying a video representation. In other words, Applicant respectfully asserts that the significant and meaningful limitations in claim 9 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>271</sup>

Next, even if claim 9 is found to recite an abstract idea, and even if it is found not to be tied to a particular machine or apparatus, the process of claim 9 transforms an article into a different state or thing, because it involves the transformation of a physical object or substance or an electronic representative thereof.<sup>272</sup> In *Abele*<sup>273</sup>, the CCPA held patentable a claim that specified the transformation of raw data representing physical and tangible objects (the structure of body tissues) into a particular visual depiction on a display. In *Bilski*, the Federal Circuit clarified that “the electronic transformation of the data itself into a visual depiction” was sufficient to render the claimed invention statutory subject matter under Section 101.<sup>274</sup> In claim 9, because displaying a video representation requires the use of a video machine, such as a video display, claim 9 involves the transformation of video information/data into a visual depiction. Therefore, displaying a video representation, as claimed in claim 9, involves the same sort of patent-eligible transformation of data into a visual depiction as that in *Abele*.

To the extent that claim 9 (depending on claim 1) recites a fundamental principle, claim 9 is limited to a practical application (displaying a motion picture) of that principle to transform specific data (e.g., video data of an actor acting). Further, claim 9 is limited to a visual depiction (displaying a video representation) that represents specific physical objects (an actor). Under these conditions, “there is no danger that the scope of the claim would wholly pre-empt all uses of the principle.”<sup>275</sup> Therefore, even if claim 9 is found

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<sup>270</sup> *Bilski* at 27.

<sup>271</sup> *Bilski* at 26.

<sup>272</sup> *Bilski* at 28.

<sup>273</sup> 684 F.2d at 909.

<sup>274</sup> *Bilski* at 26.

<sup>275</sup> *Bilski* at 26.

to recite an abstract idea, it is patent-eligible subject matter because it would not pre-empt substantially all uses of that abstract idea if allowed.

Further, no matter how the steps of displaying a video representation are performed, some physical object or substance or an electronic representative thereof must, necessarily, be transformed. If, for example, the displaying is performed using a video display, then the claim involves the transformation of an electronic signal representative of a physical object.<sup>276</sup> In other words, claim 9, because it requires displaying a video representation, requires a transformation of the real world in the form of a physical object or substance or an electronic representative thereof.

Next, the transformation imposes meaningful limits on the claim's scope.<sup>277</sup> There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. By limiting the claim's scope to displaying a video representation, the transformation imposes meaningful limits on the claim's scope.

Finally, because the transformation does not constitute mere insignificant extra-solution activity, it is central to the purpose of the claimed process.<sup>278</sup> An example in *Bilski* of an insignificant extra-solution activity is a “data-gathering step” in an algorithm “because every algorithm inherently requires the gathering of data points.”<sup>279</sup> There is nothing insignificant about adding the steps of “displaying a video representation,” as claimed in claim 9, because it is not true that all steps of indicating inherently require displaying a video representation. Another example in *Bilski* of an insignificant extra-solution activity is “a step of recording bids” in a method of conducting an auction,<sup>280</sup> presumably because it adds little if anything to the claimed process. After all, how can one conduct an auction without recording bids? Again, there is nothing insignificant about adding the steps of “displaying a video representation,” as claimed in claim 9, because it is quite possible to indicate without displaying a video representation. In other

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<sup>276</sup> For example, the video display may electronically transform data representing an actor performing the steps of indicating into a visual depiction on the display.

<sup>277</sup> *Bilski* at 24.

<sup>278</sup> *Bilski* at 24.

<sup>279</sup> *Bilski* at 27.

<sup>280</sup> *Bilski* at 27.

words, Applicant respectfully asserts that the significant and meaningful limitations in claim 9 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>281</sup>

Therefore, even if claim 9 is found to recite an abstract idea, it is patent-eligible subject matter because it would not pre-empt substantially all uses of that abstract idea if allowed.

### Claim 11

All sections under the heading Claims 1-6 and 16 are incorporated herein by reference, except Section VI, which is included below.

#### VI. Abstract Idea

In paragraph 22, the Office Action states that a storyline *per se* is an abstract idea. Next, it states that “a storyline [cannot] be transformed into a patentable process merely by reciting it as a process of telling a story,” and cites classic dicta from *Diamond v. Diehr*<sup>282</sup>. What the Office Action leaves out is the immediately preceding sentence: “Similarly, insignificant postsolution activity will not transform an unpatentable principle into a patentable process.” (Emphasis added.) For example, consider a claim having two steps: a) implementing [unpatentable mathematical formula or abstract idea]; and b) recording results from step a). Chances are good that this would not pass the *Diamond v. Diehr* test because recording results might be considered an “insignificant postsolution activity” to implementing the otherwise unpatentable mathematical formula.

However, claim 11 of the present application does not contain any such abstract idea that is transformed by insignificant postsolution activity. Claim 1 (on which claim 11 depends) recites “indicating a character’s desire...” “indicating said character’s substantial inability...” “indicating that ... said character was an active participant...” and so forth. Indicating desire, for example, is not an abstract idea that exists only in the ether – it is a real activity, a real step, a real procedure that real people perform every day in every city in every country! For example: “I want ice cream!” There’s nothing

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<sup>281</sup> *Bilski* at 26.

<sup>282</sup> *Diehr* at 187.

abstract about this – it is the act of indicating desire. Gravity is an abstract idea. The fact that the binary number 1110 equals 14 in base 10 is an abstract idea. But there is nothing abstract about the act of shouting “I want ice cream!”

Paragraphs 24-25 liken storyline method patents to a mathematical formula found unpatentable in *Gottschalk v. Benson*. Upon first reading this, Applicant felt prepared – armed with a large mug of coffee and all – to determinedly defend storyline patents from this attack, when an incredible realization struck him: there had been no valid attack! It is the Patent Office’s obligation to provide a *prima facie* case against the patentability of storyline methods. The burden, according to MPEP 2100, is on the Patent Office. Not a single shred of evidence is provided in the entire Office Action that the storyline method claims of the present application are “analogous to a mathematical formula.” It is the Patent Office’s obligation to explain why the claimed storyline processes and information storage media are abstract ideas. How is the process recited in claim 11 of the present application any more abstract than the “method of pumping a fluid” claimed in U.S. Patent No. 7,082,750 to Applicant? They’re simply processes reciting specific, definite, non-abstract steps!

In paragraph 41 of the Final Office Action, the Patent Office admits that “There is no post-solution activity in claim 1” and then asserts that “Claim 1 is an abstract idea – period.” Applicant respectfully disagrees with the latter statement.

Section 101<sup>283</sup> includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof...”. In *Diamond v. Chakrabarty*<sup>284</sup>, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria. While Section 101

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<sup>283</sup> 35 U.S.C.

<sup>284</sup> *Chakrabarty* at 308-9.

should be read extremely broadly, the Court reminded the nation that specifically excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas.<sup>285</sup>

The Supreme Court offered precious little guidance on what exactly is an unpatentable “abstract idea.” The Court instructed that while “Congress plainly contemplated that the patent laws would be given wide scope,” exceptions to statutory subject matter under Section 101 include “laws of nature, physical phenomena, and abstract ideas.” As examples, the Court cites “a new mineral discovered in the earth,” “a new plant found in the wild,” Einstein’s “celebrated law that  $E=mc^2$ ,” and Newton’s law of gravity.<sup>286</sup>

None of the Court’s examples are “made by man.” The former two represent naturally occurring objects, while the latter two represent *fundamental mathematical truths* about the universe that were discovered, but not *made*, by humans. The claimed inventions are not fundamental mathematical truths about the universe. Applicant *made* them; he did not merely discover them. The processes did not exist prior to their conception by Applicant. Therefore, the claimed processes are not abstract ideas under *Chakrabarty*.

In *Le Roy v. Tatham*<sup>287</sup>, the Court said that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive...”. For example, the electromagnetic force (coupled with the mathematical equations that describe it) is a fundamental truth. It is also an original cause and motive that, for example, causes magnets to attract or repel. The claimed inventions are not fundamental truths, original causes, or motives. They are inventions by Applicant that are neither fundamental nor original to the universe. Therefore, the claimed processes are not abstract ideas under *Le Roy v. Tatham*.

Next, the Federal Circuit stated in *Alappat*<sup>288</sup> that “abstract ideas constitute disembodied concepts or truths which are not ‘useful’ from a practical standpoint standing alone, i.e., they are not ‘useful’ until reduced to some practical application.”

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<sup>285</sup> *Chakrabarty* at 309.

<sup>286</sup> *Id.*

<sup>287</sup> 14 How. 156, 175 (1852).

<sup>288</sup> *Alappat* at footnote 18.

*State Street*<sup>289</sup> interpreted *Alappat* to say that “Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”

Applicant respectfully asserts that the claimed processes are not abstract ideas under these definitions. First, a step of “indicating...” (as recited in the claim) is certainly not a “truth” of any kind. “Indicating” is neither true nor false. Second, a step of “indicating...” is not a disembodied concept. For example, “indicating a desire for ice cream,” such as shouting “I want ice cream!” is very specific and embodied. While  $E=mc^2$  may be a disembodied concept, there is nothing disembodied about a specific action, whether it be “drilling,” “lifting,” “transforming,” or “indicating.”

Third, a step of “indicating...” is very useful from a practical standpoint standing alone. For example, “indicating a desire for ice cream” provides useful information to the observers of such indicating, namely that the person so indicating has a desire for ice cream. A person who is “indicating a need for help,” such as shouting “Help!” will find the step of indicating very useful from a practical standpoint standing alone. Claim 9 recites a process of relaying a story having a unique plot, including indicating several elements of the plot. These steps of indicating are useful from a practical standpoint standing alone at least by providing entertainment or information. Therefore, the claimed processes are not abstract ideas under *Alappat*.

Finally, case law suggests that the legal construct of “abstract idea” is directly associated with *mathematical algorithms*. For example, consider *In re Warmerdam*<sup>290</sup>, in which the cited prior art was “a mathematical procedure known as Hilditch Skeletonization method”: “The body of claim 1 recites the steps of ‘locating’ a medial axis, and ‘creating’ a bubble hierarchy. These steps describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic ‘abstract idea.’” (Emphasis added.) The claims were also directed to mathematical formulae in *Arrhythmia Research Technology v. Corazonix Corp.*<sup>291</sup>, which commented on *Diamond v. Diehr*: “The Simson claims are analogous to those upheld in *Diehr*, wherein the Court remarked that the applicants ‘do not seek to patent a mathematical formula [known as the

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<sup>289</sup> *State Street* at 1373.

<sup>290</sup> *Warmerdam* at 1360.

<sup>291</sup> 958 F.2d 1053, 1059 (Fed. Cir. 1992).

“Arrhenius equation”]. . . . they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process’. 450 U.S. at 187, 209. Simson’s claimed method is similarly limited. The process claims comprise statutory subject matter.” (Emphasis added.)

Further, the Federal Circuit in *Alappat*<sup>292</sup> stated that “Although many, or arguably even all, of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements … to produce a useful, concrete, and tangible result.” (Emphasis added.) *State Street*<sup>293</sup> characterized *Alappat* as holding that “data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible result’—the smooth waveform.” (Emphasis added.) Even in *Bilski*<sup>294</sup>, the Federal Circuit struck down the Applicants’ claims as “effectively pre-empt[ing] any application of the fundamental concept of hedging and mathematical calculations inherent in hedging.” (Emphasis added.) Other examples demonstrate that the phrase “abstract idea” is associated with mathematical algorithms.<sup>295</sup>

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<sup>292</sup> *Alappat* at 1544.

<sup>293</sup> *State Street* at 1373.

<sup>294</sup> *Bilski* at 32. Unfortunately, even though the Court asserts that “The true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process” (p. 7), it gave no guidance on how to determine if one is seeking to claim an abstract idea, or even what an abstract idea is. Significantly, it refers to both *Diehr* and *Benson*, in which the claimed processes each involved mathematical algorithms. Only on page 32 does the Court summarily assert, without explanation, that hedging, and the mathematical calculations inherent in hedging, are fundamental principles.

<sup>295</sup> For example, in *Parker v. Flook*, the Court resolved the issue of whether the mathematical formula recited in Applicant’s claim constituted an unpatentable abstract idea. 437 U.S. 584, 587 (1978). The Court referred to *Benson*: “In *Benson* we concluded that the process application in fact sought to patent an idea, noting that ‘[the] mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.’ [*Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)].” *Id* at 589. (Emphasis added.) As another example, the Applicant under *In re Schrader* attempted to patent “a novel way of conducting auctions,” asserting that he did not claim an abstract idea because there was no mathematical algorithm implicit in the claim. The Court disagreed because a mathematical algorithm is a “‘procedure for solving a given type of mathematical problem’ … [and the claimed] process, although expressed in general terms, is within or similar to a class of well-known mathematical optimization procedures commonly applied to business problems called linear programming.” 22 F.3d 290, 293 (Fed. Cir. 1994). (Emphasis added.)

Clearly, the claims pending in the present application have nothing to do with mathematical algorithms. Specifically, steps of “indicating...” the elements of a fictional plot have nothing to do with a “procedure for solving a given type of mathematical problem”<sup>296</sup>. Therefore, the claimed processes are not abstract ideas.

Applicant respectfully submits that the reason for the prohibition against patenting abstract ideas is to prevent fundamental truths that exist independently of human existence (like  $E=mc^2$ ) from being claimed by one person. If a claimed invention was not simply discovered but *created* by a human (and thus wouldn’t have existed but for that human), Applicant respectfully submits that the invention should be examined against prior art for patentability.

A method is a method and should be examined as such.<sup>297</sup> The Supreme Court has made clear that statutory subject matter includes “anything under the sun that is made by man.”<sup>298</sup> Unless the claimed invention is merely a law of nature<sup>299</sup>, a natural phenomenon<sup>300</sup>, a manipulation of basic mathematical constructs<sup>301</sup>, an abstract idea constituting disembodied concepts or truths that are not useful<sup>302</sup>, or an incomprehensible claim to an abstract energy state<sup>303</sup>, it is patentable subject matter. There is simply no statutory or common law exempting from patentability a useful method for producing entertainment.

Other claim forms, besides methods, may also be patentable subject matter, such as an article of manufacture containing the storyline. Consider a claim—which may be dubbed a “storyline article claim”—to a storage medium, such as a DVD or video cassette:

A machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story

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<sup>296</sup> *In re Schrader*, 22 F.3d 290, 293 (Fed. Cir. 1994).

<sup>297</sup> *State Street* at 1377.

<sup>298</sup> *Chakrabarty* at 309.

<sup>299</sup> *Id.*

<sup>300</sup> *Id.*

<sup>301</sup> *Warmerdam* at 1360.

<sup>302</sup> *State Street* at 1373.

<sup>303</sup> *Bonczyk* at 911.

having a unique plot, the story involving characters and having a timeline, the process comprising:

indicating that a first character...

The above claim format is substantively indistinguishable from the thousands of computer program product claims allowed by the Patent Office since *In re Beauregard*. If a computer disk containing a functionally unrelated but independently patentable software is patentable, should not a DVD containing an independently patentable storyline (in the form of a method executed by a consumer via her DVD player) also be patentable? Further, as previously discussed, a book-bound fictional novel containing a patentable method is probably patentable simply because the inscriptions in the pages of a novel just *are* a computer program—given a computer programmed to read prose as a software language. A patentable software program embodied in a tangible medium is patentable. Analogously, a patentable storyline method embodied in a tangible medium—e.g., a novel—may also be patentable subject matter.

Further, the claimed processes do not claim *mental processes*, nor did the Patent Office contend that they claim mental processes. For example, “indicating...” (as recited in claim 1, on which claim 11 depends) is an active step that is not a “process of human thinking” and does not “depend... on human intelligence alone.”<sup>304</sup>

If claim 1 (upon which claim 11 depends) or 11 is found to recite an abstract idea<sup>305</sup>, Applicant agrees that it would be subject to the subject matter test under *Bilski*. (Applicant makes the following arguments with reference to the attached flowchart for determining patent eligible subject matter under *Bilski*.) If so, Applicant argues that claim 11 would not pre-empt substantially all uses of that abstract idea for the following reasons.

First, the process is tied to several particular machines or apparatus,<sup>306</sup> specifically a video camera<sup>307</sup>, a set, and an information storage medium. Any one of these particular

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<sup>304</sup> *Comiskey* at 1377-8.

<sup>305</sup> In footnote 5, *Bilski* defines “fundamental principles” as “laws of nature, natural phenomena, and abstract ideas.” It is not disputed that none of the claims recite laws of nature or natural phenomena.

<sup>306</sup> *Bilski* at 10.

machines/apparati may be sufficient to render claim 11 patent-eligible subject matter under *Bilski*. For the sake of brevity, they will be argued together.

Next, the fundamental principle (to the extent claim 1 or 11 recites one) has utility other than operating with the video camera, set, or information storage medium.<sup>308</sup> Further, the claim's tie to the video camera, set, or information storage medium reduces the preemptive footprint of the claim<sup>309</sup> and imposes meaningful limits on the claim's scope<sup>310</sup>. There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. Thus, the fundamental principle (to the extent claim 1 or 11 recites one) has utility other than merely creating video segments via the video camera by filming indications by the actor, providing a set, or storing the motion picture on an information storage medium. Further, by limiting the claim's scope to creating video segments via the video camera, providing a set, and storing the motion picture on an information storage medium, the claim's tie to the video camera, set, and information storage medium reduces the preemptive footprint of the claim and imposes meaningful limits on the claim's scope.

Finally, the video camera, set, and information storage medium to which claim 11 is tied does not constitute mere insignificant extra-solution activity.<sup>311</sup> An example in *Bilski* of an insignificant extra-solution activity is a "data-gathering step" in an algorithm "because every algorithm inherently requires the gathering of data points."<sup>312</sup> There is nothing insignificant about adding the steps of creating video segments via the video camera, providing the set, or storing the motion picture on the information storage medium, as recited in claim 11, because it is not true that all steps of indicating inherently require creating video segments via a video camera, providing a set, or storing a motion picture on an information storage medium. Another example in *Bilski* of an insignificant extra-solution activity is "a step of recording bids" in a method of conducting an auction,<sup>313</sup> presumably because it adds little if anything to the claimed process. After all,

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<sup>307</sup> At least two steps in claim 11 recite creating a video segment via the video camera by filming indications by an actor.

<sup>308</sup> *Bilski* at 13.

<sup>309</sup> *Bilski* at 13.

<sup>310</sup> *Bilski* at 24.

<sup>311</sup> *Bilski* at 17.

<sup>312</sup> *Bilski* at 27.

<sup>313</sup> *Bilski* at 27.

how can one conduct an auction without recording bids? Again, there is nothing insignificant about adding the steps of creating video segments via the video camera, providing the set, or storing the motion picture on the information storage medium, as recited in claim 11, because it is quite possible to indicate something without adding the steps of creating video segments via a video camera, providing a set, or storing a motion picture on an information storage medium. In other words, Applicant respectfully asserts that the significant and meaningful limitations in claim 11 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>314</sup>

Next, even if claim 11 is found to recite an abstract idea, and even if it is found not to be tied to a particular machine or apparatus, the process of claim 11 transforms an article into a different state or thing, because it involves the transformation of a physical object or substance or an electronic representative thereof.<sup>315</sup> In *Abele*<sup>316</sup>, the CCPA held patentable a claim that specified the transformation of raw data representing physical and tangible objects (the structure of body tissues) into a particular visual depiction on a display. In *Bilski*, the Federal Circuit clarified that “the electronic transformation of the data itself into a visual depiction” was sufficient to render the claimed invention statutory subject matter under Section 101.<sup>317</sup> Claim 11 recites creating video segments via a video camera and editing and combining the segments. Thus, claim 11 involves the transformation of raw data (the video segments) representing physical and tangible objects (the actor) that ultimately results in a visual depiction. Therefore, creating video segments via a video camera and editing and combining the segments, as claimed in claim 11, involves the same sort of patent-eligible transformation of data into a visual depiction as that in *Abele*.

Further, the process of claim 11 transforms an article into a different state or thing, because it involves the transformation of a physical object or substance or an electronic representative thereof.<sup>318</sup> The step of “storing said motion picture on an information storage medium” involves the transformation of a physical object (the

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<sup>314</sup> *Bilski* at 26.

<sup>315</sup> *Bilski* at 28.

<sup>316</sup> 684 F.2d at 909.

<sup>317</sup> *Bilski* at 26.

<sup>318</sup> *Bilski* at 28.

information storage medium<sup>319</sup>) or an electronic signal representative of a physical object (the actor acting<sup>320</sup>). Thus, claim 11, because it requires storing the motion picture on an information storage medium, requires a transformation of the real world in the form of a physical object or substance or an electronic representative thereof.

Further, the step of “inciting an actor to act” involves the transformation of a physical object (the actor). The actor, in moving her body, speaking, etc., in response to the recited “inciting,” is physically transformed by the process. Thus, claim 11, because it requires inciting an actor to act, requires a transformation of the real world in the form of a physical object or substance or an electronic representative thereof.

Any one of the above cited transformations may be sufficient to render claim 11 patent-eligible subject matter under *Bilski*. For the sake of brevity, they will be argued together.

Next, each of the transformations imposes meaningful limits on the claim’s scope.<sup>321</sup> There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. By limiting the claim’s scope to creating video segments via a video camera and editing and combining the segments, storing the motion picture on an information storage medium, or inciting an actor to act, the transformation imposes meaningful limits on the claim’s scope.

Finally, because each of the transformations does not constitute mere insignificant extra-solution activity, it is central to the purpose of the claimed process.<sup>322</sup> An example in *Bilski* of an insignificant extra-solution activity is a “data-gathering step” in an algorithm “because every algorithm inherently requires the gathering of data points.”<sup>323</sup> There is nothing insignificant about adding the steps of creating video segments via a video camera and editing and combining the segments, storing the motion picture on an information storage medium, or inciting an actor to act, as recited in claim 11, because it is not true that all steps of indicating inherently require any of these steps. (Also, it

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<sup>319</sup> By altering, for example, the magnetic state of a magnetic medium, such as a hard drive, or the optical state of an optical medium, such as a DVD.

<sup>320</sup> In other words, both the electronic representation of the actor as well as the physical information storage medium itself are transformed, although one such transformation is sufficient under *Bilski*.

<sup>321</sup> *Bilski* at 24.

<sup>322</sup> *Bilski* at 24.

<sup>323</sup> *Bilski* at 27.

would be difficult or impossible to benefit from “creating a motion picture,” as recited in claim 11, without performing these steps.) Another example in *Bilski* of an insignificant extra-solution activity is “a step of recording bids” in a method of conducting an auction,<sup>324</sup> presumably because it adds little if anything to the claimed process. After all, how can one conduct an auction without recording bids? Again, there is nothing insignificant about adding the steps of creating video segments via a video camera and editing and combining the segments, storing the motion picture on an information storage medium, or inciting an actor to act, as recited in claim 11, because it is quite possible to indicate without performing any of these steps. In other words, Applicant respectfully asserts that the significant and meaningful limitations in claim 11 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>325</sup>

Therefore, even if claim 11 is found to recite an abstract idea, it is patent-eligible subject matter because it would not pre-empt substantially all uses of that abstract idea if allowed.

### Claims 12-15

All sections under the heading Claims 1-6 and 16 are incorporated herein by reference, except Section VI, which is included below.

### VI. Abstract Idea

In paragraph 22, the Office Action states that a storyline *per se* is an abstract idea. Next, it states that “a storyline [cannot] be transformed into a patentable process merely by reciting it as a process of telling a story,” and cites classic dicta from *Diamond v. Diehr*<sup>326</sup>. What the Office Action leaves out is the immediately preceding sentence: “Similarly, insignificant postsolution activity will not transform an unpatentable principle into a patentable process.” (Emphasis added.) For example, consider a claim having two steps: a) implementing [unpatentable mathematical formula or abstract idea]; and b) recording results from step a). Chances are good that this would not pass the *Diamond v.*

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<sup>324</sup> *Bilski* at 27.

<sup>325</sup> *Bilski* at 26.

<sup>326</sup> *Diehr* at 187.

*Diehr* test because recording results might be considered an “insignificant postsolution activity” to implementing the otherwise unpatentable mathematical formula.

However, claim 12 of the present application does not contain any such abstract idea that is transformed by insignificant postsolution activity. Claim 1 (on which claim 12 depends) recites “indicating a character’s desire...” “indicating said character’s substantial inability...” “indicating that ... said character was an active participant...” and so forth. Indicating desire, for example, is not an abstract idea that exists only in the ether – it is a real activity, a real step, a real procedure that real people perform every day in every city in every country! For example: “I want ice cream!” There’s nothing abstract about this – it is the act of indicating desire. Gravity is an abstract idea. The fact that the binary number 1110 equals 14 in base 10 is an abstract idea. But there is nothing abstract about the act of shouting “I want ice cream!”

Paragraphs 24-25 liken storyline method patents to a mathematical formula found unpatentable in *Gottschalk v. Benson*. Upon first reading this, Applicant felt prepared – armed with a large mug of coffee and all – to determinedly defend storyline patents from this attack, when an incredible realization struck him: there had been no valid attack! It is the Patent Office’s obligation to provide a *prima facie* case against the patentability of storyline methods. The burden, according to MPEP 2100, is on the Patent Office. Not a single shred of evidence is provided in the entire Office Action that the storyline method claims of the present application are “analogous to a mathematical formula.” It is the Patent Office’s obligation to explain why the claimed storyline processes and information storage media are abstract ideas. How is the process recited in claim 12 of the present application any more abstract than the “method of pumping a fluid” claimed in U.S. Patent No. 7,082,750 to Applicant? They’re simply processes reciting specific, definite, non-abstract steps!

In paragraph 41 of the Final Office Action, the Patent Office admits that “There is no post-solution activity in claim 1” and then asserts that “Claim 1 is an abstract idea – period.” Applicant respectfully disagrees with the latter statement.

Section 101<sup>327</sup> includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement

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<sup>327</sup> 35 U.S.C.

thereof...”. In *Diamond v. Chakrabarty*<sup>328</sup>, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria. While Section 101 should be read extremely broadly, the Court reminded the nation that specifically excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas.<sup>329</sup>

The Supreme Court offered precious little guidance on what exactly is an unpatentable “abstract idea.” The Court instructed that while “Congress plainly contemplated that the patent laws would be given wide scope,” exceptions to statutory subject matter under Section 101 include “laws of nature, physical phenomena, and abstract ideas.” As examples, the Court cites “a new mineral discovered in the earth,” “a new plant found in the wild,” Einstein’s “celebrated law that  $E=mc^2$ ,” and Newton’s law of gravity.<sup>330</sup>

None of the Court’s examples are “made by man.” The former two represent naturally occurring objects, while the latter two represent *fundamental mathematical truths* about the universe that were discovered, but not *made*, by humans. The claimed inventions are not fundamental mathematical truths about the universe. Applicant *made* them; he did not merely discover them. The processes did not exist prior to their conception by Applicant. Therefore, the claimed processes are not abstract ideas under *Chakrabarty*.

In *Le Roy v. Tatham*<sup>331</sup>, the Court said that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive...”. For example, the electromagnetic force (coupled with the mathematical equations that describe it) is a fundamental truth. It

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<sup>328</sup> *Chakrabarty* at 308-9.

<sup>329</sup> *Chakrabarty* at 309.

<sup>330</sup> *Id.*

<sup>331</sup> 14 How. 156, 175 (1852).

is also an original cause and motive that, for example, causes magnets to attract or repel. The claimed inventions are not fundamental truths, original causes, or motives. They are inventions by Applicant that are neither fundamental nor original to the universe. Therefore, the claimed processes are not abstract ideas under *Le Roy v. Tatham*.

Next, the Federal Circuit stated in *Alappat*<sup>332</sup> that “abstract ideas constitute disembodied concepts or truths which are not ‘useful’ from a practical standpoint standing alone, i.e., they are not ‘useful’ until reduced to some practical application.” *State Street*<sup>333</sup> interpreted *Alappat* to say that “Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”

Applicant respectfully asserts that the claimed processes are not abstract ideas under these definitions. First, a step of “indicating...” (as recited in the claim) is certainly not a “truth” of any kind. “Indicating” is neither true nor false. Second, a step of “indicating...” is not a disembodied concept. For example, “indicating a desire for ice cream,” such as shouting “I want ice cream!” is very specific and embodied. While  $E=mc^2$  may be a disembodied concept, there is nothing disembodied about a specific action, whether it be “drilling,” “lifting,” “transforming,” or “indicating.”

Third, a step of “indicating...” is very useful from a practical standpoint standing alone. For example, “indicating a desire for ice cream” provides useful information to the observers of such indicating, namely that the person so indicating has a desire for ice cream. A person who is “indicating a need for help,” such as shouting “Help!” will find the step of indicating very useful from a practical standpoint standing alone. Claim 9 recites a process of relaying a story having a unique plot, including indicating several elements of the plot. These steps of indicating are useful from a practical standpoint standing alone at least by providing entertainment or information. Therefore, the claimed processes are not abstract ideas under *Alappat*.

Finally, case law suggests that the legal construct of “abstract idea” is directly associated with *mathematical algorithms*. For example, consider *In re Warmerdam*<sup>334</sup>, in which the cited prior art was “a mathematical procedure known as Hilditch

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<sup>332</sup> *Alappat* at footnote 18.

<sup>333</sup> *State Street* at 1373.

<sup>334</sup> *Warmerdam* at 1360.

Skeletonization method”: “The body of claim 1 recites the steps of ‘locating’ a medial axis, and ‘creating’ a bubble hierarchy. These steps describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic ‘abstract idea.’” (Emphasis added.) The claims were also directed to mathematical formulae in *Arrhythmia Research Technology v. Corazonix Corp.*<sup>335</sup>, which commented on *Diamond v. Diehr*: “The Simson claims are analogous to those upheld in *Diehr*, wherein the Court remarked that the applicants ‘do not seek to patent a mathematical formula [known as the “Arrhenius equation”]. . . . they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process’. 450 U.S. at 187, 209. Simson’s claimed method is similarly limited. The process claims comprise statutory subject matter.” (Emphasis added.)

Further, the Federal Circuit in *Alappat*<sup>336</sup> stated that “Although many, or arguably even all, of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements . . . to produce a useful, concrete, and tangible result.” (Emphasis added.) *State Street*<sup>337</sup> characterized *Alappat* as holding that “data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible result’—the smooth waveform.” (Emphasis added.) Even in *Bilski*<sup>338</sup>, the Federal Circuit struck down the Applicants’ claims as “effectively pre-empt[ing] any application of the fundamental concept of hedging and mathematical calculations inherent in hedging.”

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<sup>335</sup> 958 F.2d 1053, 1059 (Fed. Cir. 1992).

<sup>336</sup> *Alappat* at 1544.

<sup>337</sup> *State Street* at 1373.

<sup>338</sup> *Bilski* at 32. Unfortunately, even though the Court asserts that “The true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process” (p. 7), it gave no guidance on how to determine if one is seeking to claim an abstract idea, or even what an abstract idea is. Significantly, it refers to both *Diehr* and *Benson*, in which the claimed processes each involved mathematical algorithms. Only on page 32 does the Court summarily assert, without explanation, that hedging, and the mathematical calculations inherent in hedging, are fundamental principles.

(Emphasis added.) Other examples demonstrate that the phrase “abstract idea” is associated with mathematical algorithms.<sup>339</sup>

Clearly, the claims pending in the present application have nothing to do with mathematical algorithms. Specifically, steps of “indicating...” the elements of a fictional plot have nothing to do with a “procedure for solving a given type of mathematical problem”<sup>340</sup>. Therefore, the claimed processes are not abstract ideas.

Applicant respectfully submits that the reason for the prohibition against patenting abstract ideas is to prevent fundamental truths that exist independently of human existence (like  $E=mc^2$ ) from being claimed by one person. If a claimed invention was not simply discovered but *created* by a human (and thus wouldn’t have existed but for that human), Applicant respectfully submits that the invention should be examined against prior art for patentability.

A method is a method and should be examined as such.<sup>341</sup> The Supreme Court has made clear that statutory subject matter includes “anything under the sun that is made by man.”<sup>342</sup> Unless the claimed invention is merely a law of nature<sup>343</sup>, a natural phenomenon<sup>344</sup>, a manipulation of basic mathematical constructs<sup>345</sup>, an abstract idea constituting disembodied concepts or truths that are not useful<sup>346</sup>, or an incomprehensible claim to an abstract energy state<sup>347</sup>, it is patentable subject matter. There is simply no

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<sup>339</sup> For example, in *Parker v. Flook*, the Court resolved the issue of whether the mathematical formula recited in Applicant’s claim constituted an unpatentable abstract idea. 437 U.S. 584, 587 (1978). The Court referred to *Benson*: “In *Benson* we concluded that the process application in fact sought to patent an idea, noting that ‘[the] mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.’ [Gottschalk v. Benson, 409 U.S. 63, 71-72 (1972)].” *Id* at 589. (Emphasis added.) As another example, the Applicant under *In re Schrader* attempted to patent “a novel way of conducting auctions,” asserting that he did not claim an abstract idea because there was no mathematical algorithm implicit in the claim. The Court disagreed because a mathematical algorithm is a “‘procedure for solving a given type of mathematical problem’ ... [and the claimed] process, although expressed in general terms, is within or similar to a class of well-known mathematical optimization procedures commonly applied to business problems called linear programming.” 22 F.3d 290, 293 (Fed. Cir. 1994). (Emphasis added.)

<sup>340</sup> *In re Schrader*, 22 F.3d 290, 293 (Fed. Cir. 1994).

<sup>341</sup> *State Street* at 1377.

<sup>342</sup> *Chakrabarty* at 309.

<sup>343</sup> *Id.*

<sup>344</sup> *Id.*

<sup>345</sup> *Warmerdam* at 1360.

<sup>346</sup> *State Street* at 1373.

<sup>347</sup> *Bonczyk* at 911.

statutory or common law exempting from patentability a useful method for producing entertainment.

Other claim forms, besides methods, may also be patentable subject matter, such as an article of manufacture containing the storyline. Consider a claim—which may be dubbed a “storyline article claim”—to a storage medium, such as a DVD or video cassette:

A machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story having a unique plot, the story involving characters and having a timeline, the process comprising:

indicating that a first character...

The above claim format is substantively indistinguishable from the thousands of computer program product claims allowed by the Patent Office since *In re Beauregard*. If a computer disk containing a functionally unrelated but independently patentable software is patentable, should not a DVD containing an independently patentable storyline (in the form of a method executed by a consumer via her DVD player) also be patentable? Further, as previously discussed, a book-bound fictional novel containing a patentable method is probably patentable simply because the inscriptions in the pages of a novel just *are* a computer program—given a computer programmed to read prose as a software language. A patentable software program embodied in a tangible medium is patentable. Analogously, a patentable storyline method embodied in a tangible medium—e.g., a novel—may also be patentable subject matter.

Further, the claimed processes do not claim *mental processes*, nor did the Patent Office contend that they claim mental processes. For example, “indicating...” (as recited in claim 1, on which claim 12 depends) is an active step that is not a “process of human thinking” and does not “depend... on human intelligence alone.”<sup>348</sup>

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<sup>348</sup> *Comiskey* at 1377-8.

If claim 1 (upon which claim 12 depends) or 12 is found to recite an abstract idea<sup>349</sup>, Applicant agrees that it would be subject to the subject matter test under *Bilski*. (Applicant makes the following arguments with reference to the attached flowchart for determining patent eligible subject matter under *Bilski*.) If so, Applicant argues that claim 12 would not pre-empt substantially all uses of that abstract idea for the following reasons (as well as for the reasons given regarding claim 8, upon which claim 12 depends).

The process of claim 12 transforms an article into a different state or thing, because it involves the transformation of a physical object or substance or an electronic representative thereof.<sup>350</sup> The steps of “inciting an actor to act” and “inciting said actor to indicate” involve the transformation of a physical object (the actor). The actor, in moving her body, speaking, etc., in response to the recited “inciting,” is physically transformed by the process. Thus, claim 12, because it requires inciting an actor to act, requires a transformation of the real world in the form of a physical object or substance or an electronic representative thereof.

Next, the transformation imposes meaningful limits on the claim’s scope.<sup>351</sup> There are many, many ways to perform the steps recited in claim 1, including speaking, writing, acting, animating, creating and displaying a video representation, etc. By limiting the claim’s scope to “inciting an actor to act” and “inciting said actor to indicate,” the transformation imposes meaningful limits on the claim’s scope.

Finally, because the transformation does not constitute mere insignificant extra-solution activity, it is central to the purpose of the claimed process.<sup>352</sup> An example in *Bilski* of an insignificant extra-solution activity is a “data-gathering step” in an algorithm “because every algorithm inherently requires the gathering of data points.”<sup>353</sup> There is nothing insignificant about adding the steps of “inciting an actor to act” and “inciting said actor to indicate,” as recited in claim 12, because it is not true that all steps of indicating inherently require any of these steps. (Also, it would be difficult or impossible to benefit

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<sup>349</sup> In footnote 5, *Bilski* defines “fundamental principles” as “laws of nature, natural phenomena, and abstract ideas.” It is not disputed that none of the claims recite laws of nature or natural phenomena.

<sup>350</sup> *Bilski* at 28.

<sup>351</sup> *Bilski* at 24.

<sup>352</sup> *Bilski* at 24.

<sup>353</sup> *Bilski* at 27.

from “creating a motion picture,” as recited in claim 12, without performing these steps.) Another example in *Bilski* of an insignificant extra-solution activity is “a step of recording bids” in a method of conducting an auction,<sup>354</sup> presumably because it adds little if anything to the claimed process. After all, how can one conduct an auction without recording bids? Again, there is nothing insignificant about adding the steps of “inciting an actor to act” and “inciting said actor to indicate,” as recited in claim 12, because it is quite possible to indicate without performing any of these steps. In other words, Applicant respectfully asserts that the significant and meaningful limitations in claim 12 are “sufficient to render [its] more narrowly-claimed process patent-eligible.”<sup>355</sup>

Therefore, even if claim 12 is found to recite an abstract idea, it is patent-eligible subject matter because it would not pre-empt substantially all uses of that abstract idea if allowed.

Claims 13-15, which depend on claim 12, recite similar steps and are therefore believed to be patent-eligible subject matter for at least the same reasons as claim 12.

#### Claims 17-20

All sections under the heading Claims 1-6 and 16 are incorporated herein by reference, except Section VI, which is included below.

#### VI. Abstract Idea

In paragraph 22, the Office Action states that a storyline *per se* is an abstract idea. In paragraph 41 of the Final Office Action, the Patent Office admits that “There is no post-solution activity in claim 1” and then asserts that “Claim 1 is an abstract idea – period.” To the extent that the Patent Office’s argument also applies to claims 17-20 (claiming information storage media), Applicant respectfully disagrees with the latter statement.

Section 101<sup>356</sup> includes as patentable subject matter “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement

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<sup>354</sup> *Bilski* at 27.

<sup>355</sup> *Bilski* at 26.

<sup>356</sup> 35 U.S.C.

thereof...”. In *Diamond v. Chakrabarty*<sup>357</sup>, the U.S. Patent and Trademark Office had rejected the applicant’s claims to a human-made, genetically engineered bacterium on the grounds that the legislative history of a 1930 Plant Patent Act indicated that Congress did not intend to cover living things, such as these laboratory-created microorganisms, within the scope of Section 101. In response, the Supreme Court relied on Committee Reports accompanying a 1952 Act recodifying the patent laws which indicated that Congress intended statutory subject matter to “include anything under the sun that is made by man,” and thus included living, genetically engineered bacteria. While Section 101 should be read extremely broadly, the Court reminded the nation that specifically excluded from statutory subject matter are the laws of nature, physical phenomena, and abstract ideas.<sup>358</sup>

The Supreme Court offered precious little guidance on what exactly is an unpatentable “abstract idea.” The Court instructed that while “Congress plainly contemplated that the patent laws would be given wide scope,” exceptions to statutory subject matter under Section 101 include “laws of nature, physical phenomena, and abstract ideas.” As examples, the Court cites “a new mineral discovered in the earth,” “a new plant found in the wild,” Einstein’s “celebrated law that  $E=mc^2$ ,” and Newton’s law of gravity.<sup>359</sup>

None of the Court’s examples are “made by man.” The former two represent naturally occurring objects, while the latter two represent *fundamental mathematical truths* about the universe that were discovered, but not *made*, by humans. The claimed inventions are not fundamental mathematical truths about the universe. Applicant *made* them; he did not merely discover them. The processes did not exist prior to their conception by Applicant. Therefore, the claimed information storage media are not abstract ideas under *Chakrabarty*.

In *Le Roy v. Tatham*<sup>360</sup>, the Court said that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive...”. For example, the electromagnetic force (coupled with the mathematical equations that describe it) is a fundamental truth. It

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<sup>357</sup> *Chakrabarty* at 308-9.

<sup>358</sup> *Chakrabarty* at 309.

<sup>359</sup> *Id.*

<sup>360</sup> 14 How. 156, 175 (1852).

is also an original cause and motive that, for example, causes magnets to attract or repel. The claimed inventions are not fundamental truths, original causes, or motives. They are inventions by Applicant that are neither fundamental nor original to the universe. Therefore, the claimed information storage media are not abstract ideas under *Le Roy v. Tatham*.

Case law suggests that the legal construct of “abstract idea” is directly associated with *mathematical algorithms*. For example, consider *In re Warmerdam*<sup>361</sup>, in which the cited prior art was “a mathematical procedure known as Hilditch Skeletonization method”: “The body of claim 1 recites the steps of ‘locating’ a medial axis, and ‘creating’ a bubble hierarchy. These steps describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic ‘abstract idea.’” (Emphasis added.) The claims were also directed to mathematical formulae in *Arrhythmia Research Technology v. Corazonix Corp.*<sup>362</sup>, which commented on *Diamond v. Diehr*: “The Simson claims are analogous to those upheld in *Diehr*, wherein the Court remarked that the applicants ‘do not seek to patent a mathematical formula [known as the “Arrhenius equation”]. . . . they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process’. 450 U.S. at 187, 209. Simson’s claimed method is similarly limited. The process claims comprise statutory subject matter.” (Emphasis added.)

Further, the Federal Circuit in *Alappat*<sup>363</sup> stated that “Although many, or arguably even all, of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements . . . to produce a useful, concrete, and tangible result.” (Emphasis added.) *State Street*<sup>364</sup> characterized *Alappat* as holding that “data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible result’—the

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<sup>361</sup> *Warmerdam* at 1360.

<sup>362</sup> 958 F.2d 1053, 1059 (Fed. Cir. 1992).

<sup>363</sup> *Alappat* at 1544.

<sup>364</sup> *State Street* at 1373.

smooth waveform.” (Emphasis added.) Even in *Bilski*<sup>365</sup>, the Federal Circuit struck down the Applicants’ claims as “effectively pre-empt[ing] any application of the fundamental concept of hedging and mathematical calculations inherent in hedging.” (Emphasis added.) Other examples demonstrate that the phrase “abstract idea” is associated with mathematical algorithms.<sup>366</sup>

Clearly, the claims pending in the present application have nothing to do with mathematical algorithms or a “procedure for solving a given type of mathematical problem”<sup>367</sup>. Therefore, the claimed information storage media are not abstract ideas.

Finally, the Federal Circuit stated in *Alappat*<sup>368</sup> that “abstract ideas constitute disembodied concepts or truths which are not ‘useful’ from a practical standpoint standing alone, i.e., they are not ‘useful’ until reduced to some practical application.” *State Street*<sup>369</sup> interpreted *Alappat* to say that “Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not ‘useful.’”

It should be pointed out here that *an information storage medium is a manufacture*, explicitly patent-eligible subject matter under Section 101. To Applicant’s knowledge, no decision by the BPAI or higher court has ever disqualified an article of manufacture from statutory subject matter on the basis of being an abstract idea. This

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<sup>365</sup> *Bilski* at 32. Unfortunately, even though the Court asserts that “The true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process” (p. 7), it gave no guidance on how to determine if one is seeking to claim an abstract idea, or even what an abstract idea is. Significantly, it refers to both *Diehr* and *Benson*, in which the claimed processes each involved mathematical algorithms. Only on page 32 does the Court summarily assert, without explanation, that hedging, and the mathematical calculations inherent in hedging, are fundamental principles.

<sup>366</sup> For example, in *Parker v. Flook*, the Court resolved the issue of whether the mathematical formula recited in Applicant’s claim constituted an unpatentable abstract idea. 437 U.S. 584, 587 (1978). The Court referred to *Benson*: “In *Benson* we concluded that the process application in fact sought to patent an idea, noting that ‘[the] mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.’ [Gottschalk v. Benson, 409 U.S. 63, 71-72 (1972)].” *Id* at 589. (Emphasis added.) As another example, the Applicant under *In re Schrader* attempted to patent “a novel way of conducting auctions,” asserting that he did not claim an abstract idea because there was no mathematical algorithm implicit in the claim. The Court disagreed because a mathematical algorithm is a “‘procedure for solving a given type of mathematical problem’ … [and the claimed] process, although expressed in general terms, is within or similar to a class of well-known mathematical optimization procedures commonly applied to business problems called linear programming.” 22 F.3d 290, 293 (Fed. Cir. 1994). (Emphasis added.)

<sup>367</sup> *In re Schrader*, 22 F.3d 290, 293 (Fed. Cir. 1994).

<sup>368</sup> *Alappat* at footnote 18.

<sup>369</sup> *State Street* at 1373.

makes sense, of course, because an article of manufacture is a *physical thing* and cannot, by its nature, be an abstract idea, such as a mathematical equation.<sup>370</sup> The Court in *In re Nuijten*<sup>371</sup> explained in Footnote 7 that the “useful” standard was applied in both *Alappat* and *State Street* to specific machines producing a useful, concrete, and tangible result. Significantly, the court distinguished articles of manufacture: “We have never held that a manufacture is ever required to produce any result. Thus, the ‘useful, concrete, and tangible result’ inquiry is simply inapplicable here.”

Further, *In re Bilski*, the landmark *en banc* Federal Circuit decision addressing inventions that involve fundamental principles (such as abstract ideas), deals only with the meaning of the term “process” in Section 101.<sup>372</sup> In Footnote 2, the Court specifically disclaims manufactures from its analysis, leaving *Nuijten* as binding law that “the ‘useful, concrete, and tangible result’ inquiry is simply inapplicable” to manufactures.

In other words, Applicant respectfully submits that *Bilski* is inapplicable to manufactures, which are patent-eligible subject matter whether or not they produce a useful, concrete, and tangible result. Because claims 17-20 are directed to manufactures, because a manufacture *cannot* be an abstract idea, and because manufactures are explicitly patent-eligible subject matter under Section 101, Applicant respectfully asserts that no further argument is needed. For example, the DVD recited in claim 20 is certainly a patent-eligible article of manufacture. Whether the information contained on the DVD will be given *patentable weight* for purposes of distinguishing the claim over prior art (under Sections 102 and 103) is a question of application of the printed matter doctrine, addressed in Section VIII. Nevertheless, for purposes of Section 101, a manufacture, such as the information storage media claimed in claims 17-20, is patent-eligible subject matter.

Applicant respectfully submits that the reason for the prohibition against patenting abstract ideas is to prevent fundamental truths that exist independently of human existence (like  $E=mc^2$ ) from being claimed by one person. If a claimed invention was not simply discovered but *created* by a human (and thus wouldn’t have existed but for that

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<sup>370</sup> “These definitions address ‘articles’ of ‘manufacture’ as being tangible articles or commodities.” *In re Nuijten*, 500 F.3d 1346, 1356 (Fed. Cir. 2007) (hereinafter “Nuijten”).

<sup>371</sup> *Nuijten* at 1356-7.

<sup>372</sup> *Bilski* at 5.

human), Applicant respectfully submits that the invention should be examined against prior art for patentability.

#### **Rejections under 35 U.S.C. 103(a) Over Any Movie Recorded on a DVD**

Referring now to the Section 103 rejections beginning in paragraph 35 of the First Office Action, the Patent Office (significantly) makes no prior art rejections, on the basis that “there is no technological basis for evaluating combinations of plot elements...”. Applicant respectfully submits that, as discussed previously, there is no “technology” requirement for patentability – thus there can be no requirement of a technological basis for evaluating patents.

Next, in paragraph 36, the Patent Office states that “it is impossible to determine the ‘state of the art’ – i.e., the scope and content of the prior art” because “storytelling is not an ‘art’ in the sense that we use it in patent law.” Applicant, in attempting to understand this point, will paraphrase it to the best of his ability: “You can’t determine the ‘state of the art’ since storylines are not a patentable ‘art’.” The problem with this argument is that it isn’t a Section 103 rejection – it’s just a rehash of the Patent Office’s previous Section 101 rejections, which Applicant has already addressed.

Paragraph 36 is also full of interesting but unsupported conjectures, such as that storytelling has no “state” and it is not possible in storytelling to “ascertain when certain elements are added to the technology.” However, no evidence or reasoning is given. What prevents an inventor from starting with plot elements A, B, and C, and then adding an element D? Further, the conjectures rest on the assumption that invention is always based on adding elements to technology, when in reality most patent claims are novel and nonobvious combinations of elements that already exist. The “state” of the storyline art can be ascertained, essentially, by compiling all known storylines.

Paragraph 37 contains an astounding assertion, namely that searching the world’s literature for plot elements would be “impossible.” Applicant initially assumed that the word “impossible” was ordinarily reserved for events that are not possible, such as

reverse time travel<sup>373</sup>. However, according to *Merriam-Webster's Online Dictionary* ([www.m-w.com](http://www.m-w.com)), a secondary definition of “impossible” is “extremely undesirable.” Is this the definition that the Patent Office intended? A close look at paragraphs 37-43 reveals a distinctive downgrade of “impossible” to “practical[ly] impossible” and “virtually impossible.” It is clear, based on this evidence, that the Patent Office doesn’t actually believe that searching the world’s literature is more difficult than time travel through wormholes, but rather that it would be extremely undesirable and quite inconvenient. Applicant understands and even empathizes with the Patent Office. Unfortunately, inconvenience in examination is not currently a valid basis for claim rejection.

In paragraph 38, the Patent Office asserts that the “level of ordinary skill” has no meaning in the present context because “Whether someone is a ‘skillful’ storyteller is a matter of opinion. Tastes vary... there are no objective criteria for determining the level of ‘ordinary’ skill.” Applicant responds that “one of ordinary skill in the art” is a legal fiction representing a person who has extensive knowledge of his field, although he may not be particularly clever. If Mark Twain argued that James Fenimore Cooper was not a skilled storyteller, he meant it in the colloquial sense, not the legal sense, and his personal opinion would have had no bearing on the legal determination of whether Mr. Cooper met the qualifications of one of ordinary skill in the art of storytelling. The assertion that no objective criteria currently exist for determining the level of ordinary skill in the art of storytelling says nothing about the patentability of storyline method claims – rather, it says that it’s time to create some objective criteria!<sup>374</sup> For example, software patents were allowed long before commentators began discussing objective criteria for the level of ordinary skill in the art of software engineering.<sup>375</sup>

In paragraph 39, the Patent Office asks all kinds of rhetorical questions, apparently hoping that asking lots of hard questions will substitute for valid claim rejections. They don’t, argues Applicant, nor does Applicant feel required to answer

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<sup>373</sup> Although even this event, according to some physicists, would be possible by traveling near the speed of light through enormous “wormholes.”

<sup>374</sup> A further analysis of the level of ordinary skill in the art of storytelling is provided (and incorporated by reference) in Applicant’s article, *A Patently Novel Plot: Fiction, Information, and Patents in the 21<sup>st</sup> Century*.

<sup>375</sup> See, e.g., Lance D. Reich, *One of Skill in the Art in Software Engineering: The Rising Tide*, 84 J. PAT & TRADEMARK OFF. SOC’Y 269, 278–84 (2002).

them, as they don't form a *prima facie* case against the claims of the present invention. However, the Patent Office does specifically state that there cannot be "objective evidence indicating obviousness..." of storyline patent claims. Applicant heartily disagrees. Assume, for example, that a movie already exists that describes a plot having elements A, B, and C, where element C involves utilizing a computer-generated virtual reality environment. Assume also that a storyline inventor creates a storyline method having elements D, E, and F, but states in her written description that any of the elements could occur within or in conjunction with a virtual reality. One might conclude that this suggestion constitutes objective evidence that renders the inventor's storyline combinable with at least element C (and perhaps the entirety) of the prior art movie, thus preventing future storyline inventors from patenting such a combination. Again, the Patent Office has not established a *prima facie* case against the claims of the present invention by simply asserting, with no evidence, that "there cannot possibly be any ... objective evidence [of obviousness]."

In paragraph 40, the Patent Office suggests that, should storyline patents be allowed, they should be subject to stricter standards than other inventions by completely ignoring the legal requirement to identify, within the prior art references, a motivation to combine them to obviate claims under Section 103. No reason is offered as to why storyline patent claims would be subject to stricter standards, except the unfounded assertion that there "cannot possibly" be evidence of obviousness in storyline patent applications, which Applicant just refuted by providing one possibility.

Paragraph 42 is a final attempt to explain just how inconvenient it would be for the Patent Office to examine storyline patent applications, because "There are no databases that encompass all of the stories told or written by man." Applicant has two responses. First, the U.S. patent system was created and developed long before searchable databases of inventions in any field existed. Eventually, for reasons of efficiency, such databases naturally developed, and Applicant has tremendous faith in the power of the United States' free market economy to produce a comparable database for storylines, should they be found allowable. Second – a fact that simply cannot be stressed enough – inconvenience of examination by the Patent Office is, to Applicant's knowledge, not a valid basis for claim rejection.

The knowledge (of existing storylines) is currently available, if somewhat piecemeal. The fact that no comprehensive database yet exists is only due to the fact that no storyline claims have yet been patented. But Applicant is not to blame – and should not be penalized – for being the first to so attempt. If storyline methods are allowable under current patent law, then inconvenience on the part of the Patent Office in examining the first few storyline patent applications should not prevent Applicant from exercising his right to obtain a patent on new and nonobvious storyline claims.

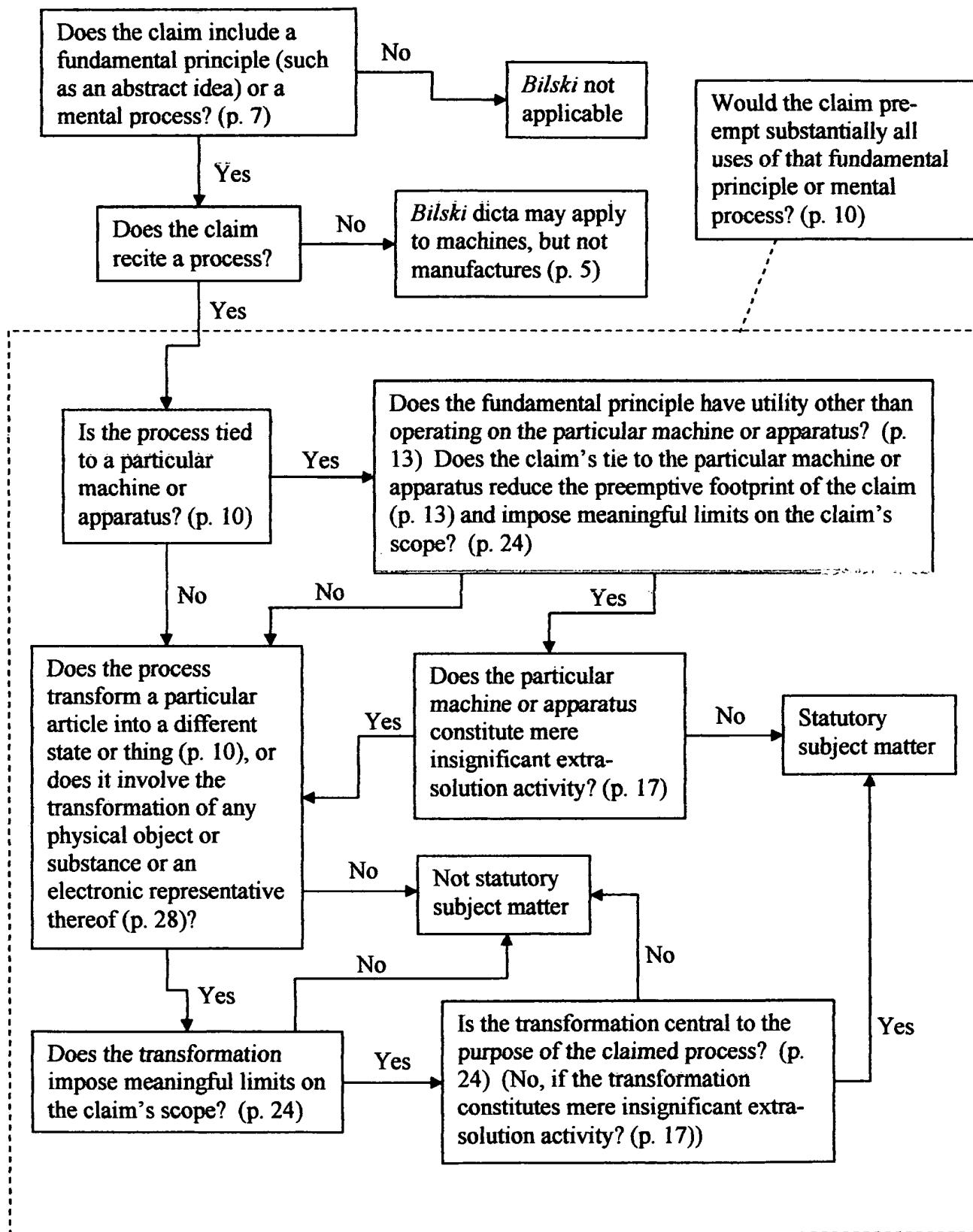
Paragraph 42 also asserts that no patent examiner could “perform a meaningful search of such a database if one existed” because literary scholars “are rare in the Patent Office.” While this may be true, it’s only because literary scholars have not yet been needed by the Patent Office. If and when storyline patents are found allowable, a need will arise and experts in the literary arts can be hired by the Patent Office.

In paragraph 44, claims 7-15 and 17-20 are rejected under Section 103(a) as being unpatentable “over any movie recorded on a DVD.” These rejections are nothing more than an application of the printed matter doctrine through the proper route of Section 103. In other words: even though claims 7-15 and 17-20 may not be legitimately rejected under Section 101 by application of the printed matter doctrine (as discussed in Section VIII), any printed matter will not be given patentable weight and the claims will be rejected as an obvious variation of “any movie recorded on a DVD.”

Applicant respectfully traverses these rejections for at least the following reasons. Applicant has already discussed in Section VIII that: a) the printed matter doctrine is not applicable to process claims (which would include claims 7-15); and b) all limitations in claims 17-20 should be given patentable weight. Therefore, all limitations in claims 7-15 and 17-20 should be given patentable weight.

In the First Office Action, no prior art is cited, and the Patent Office even assumes in paragraph 43 that the claimed storylines meet the tests of novelty and nonobviousness. These rejections fail to establish a *prima facie* case of obviousness because “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” MPEP 2142. Since the Office Action does not contend that all claim elements of claims 7-15 and 17-20 are taught or suggested – namely, those elements relating directly to the underlying storylines – then it fails to establish a *prima facie* case of obviousness.

*In re Bilski*  
 Flowchart for Patentable Subject Matter  
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8) Claims Appendix: An Appendix containing a copy of the claims involved in this appeal is attached.

9) Evidence Appendix: None.

10) Related Proceedings Appendix: None.

Respectfully submitted,

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12/3/08

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## CLAIMS APPENDIX

1. (Original) A process of relaying a story having a timeline and a unique plot involving characters, comprising:

indicating a character's desire at a first time in said timeline for at least one of the following: a) to remain asleep or unconscious until a particular event occurs; and b) to forget or be substantially unable to recall substantially all events during the time period from said first time until a particular event occurs;

indicating said character's substantial inability at a time after said occurrence of said particular event to recall substantially all events during the time period from said first time to said occurrence of said particular event; and

indicating that during said time period said character was an active participant in a plurality of events.

2. (Original) A process of relaying a story as in claim 1, comprising:

indicating that said particular event has occurred at a second time in said timeline at least one week after said first time; and

indicating said character's substantial inability at a time after said second time to recall substantially all events during the time period from said first time to said second time.

3. (Original) A process of relaying a story as in claim 2, wherein said second time is at least one year after said first time.

4. (Original) A process of relaying a story as in claim 1, wherein said particular event is at least one of: a passing of a particular amount of time; a notification of a decision; and a relief of a pain.

5. (Original) A process of relaying a story as in claim 1, wherein said plurality of events comprises at least one of said character's wedding, a birth of a child of said character, and performance of said character's occupation for a substantial portion of said time period.

6. (Original) A process of relaying a story as in claim 1, further comprising indicating a belief held by at least three other characters that said character was conscious during said active participation in said plurality of events.

7. (Original) A process of relaying a story as in claim 1, wherein each of said steps of indicating comprises indicating in a written form.

8. (Original) A process of relaying a story as in claim 1, wherein each of said steps of indicating comprises indicating in a video form.

9. (Original) A process of relaying a story as in claim 8, wherein said process is a process of displaying a motion picture having a timeline and a unique plot, comprising: displaying a video representation of an actor acting as said character;

displaying a video representation of said actor indicating at said first time in said timeline a desire for said at least one of a) and b);

displaying a video representation of an indication that said particular event has occurred at a second time in said timeline;

displaying a video representation of said actor indicating at a time after said second time a substantial inability to recall substantially all events during the time period from said first time to said second time; and

displaying a video representation of an indication that during said time period said character was an active participant in a plurality of events.

10. (Original) A process of relaying a story as in claim 8, wherein said process is a process of creating a motion picture having a timeline and a unique plot, comprising:

creating a video representation of an actor acting as said character;  
creating a video representation of said actor indicating at said first time in said timeline a desire for said at least one of a) and b);

creating a video representation of an indication that said particular event has occurred at a second time in said timeline;

creating a video representation of said actor indicating at a time after said second time a substantial inability to recall substantially all events during the time period from said first time to said second time; and

creating a video representation of an indication that during said time period said character was an active participant in a plurality of events.

11. (Original) A process of relaying a story as in claim 8, wherein said process is a process of creating a motion picture having a timeline and a unique plot, comprising:

providing a set;

providing a video camera configured to video at least a portion of said set;

inciting an actor to act as said character;

inciting said actor to indicate at said first time in said timeline a desire for said at least one of a) and b);

creating a first video segment via said video camera by filming said indication by said actor at said first time;

inciting said actor to indicate at a time after said occurrence of said particular event a substantial inability to recall substantially all events during the time period from said first time to said occurrence of said particular event;

creating a second video segment via a video camera by filming said indication by said actor at said time after said occurrence of said particular event;

creating a third video segment of an indication that during said time period said character was an active participant in a plurality of events;

editing and combining at least part of at least said first, second, and third video segments to form a motion picture; and

storing said motion picture on an information storage medium.

12. (Original) A process of relaying a story as in claim 8, wherein said process is a process of creating a motion picture having a timeline and a unique plot, comprising:

inciting an actor to act as said character;

inciting said actor to indicate at said first time in said timeline a desire for said at least one of a) and b);

indicating that said particular event has occurred at a second time in said timeline; and

inciting said actor to indicate at a time after said second time a substantial inability to recall substantially all events during the time period from said first time to said second time.

13. (Original) A process of relaying a story as in claim 12, further comprising inciting said actor to indicate a belief that said particular event will occur at an approximate time in said timeline that is substantially earlier than said second time.

14. (Original) A process of relaying a story as in claim 12, further comprising inciting a second actor to indicate a belief that said character was conscious during said active participation in said plurality of events.

15. (Original) A process of relaying a story as in claim 14, further comprising:  
indicating that said plurality of events are stored in said character's brain; and  
inciting a third actor to indicate an ability to recreate at least some of said plurality of events by accessing said character's brain,  
wherein said plurality of events comprises at least one of said character's wedding, a birth of a child of said character, and performance of said character's occupation for a substantial portion of said time period, and

wherein said second time is at least one year after said first time.

16. (Original) A process of relaying a story as in claim 1, further comprising:  
indicating that said plurality of events are stored in said character's brain; and indicating  
a second character's ability to recreate at least some of said plurality of events by  
accessing said character's brain.

17. (Original) An information storage medium containing information of a story  
having a timeline and a unique plot involving characters, said information comprising:

an indication of a character's desire at a first time in said timeline for at least one  
of the following: a) to remain asleep or unconscious until a particular event occurs; and  
b) to forget or be substantially unable to recall substantially all events during the time  
period from said first time until a particular event occurs;

an indication that said particular event has occurred at a second time in said  
timeline;

an indication of said character's substantial inability at a time after said second  
time to recall substantially all events during the time period from said first time to said  
second time; and

an indication that during said time period said character was an active participant  
in a plurality of events.

18. (Original) An information storage medium as in claim 17, wherein said  
information storage medium is a book.

19. (Original) An information storage medium as in claim 17, wherein said medium contains video information of a motion picture, said video information comprising:
- a video representation of an actor acting as a character;
  - a video representation of said actor indicating at a first time in said timeline a desire for at least one of the following: a) to remain asleep or unconscious until a particular event occurs; and b) to forget or be substantially unable to recall substantially all events during the time period from said first time until a particular event occurs;
  - a video representation of an indication that said particular event has occurred at a second time in said timeline;
  - a video representation of said actor indicating at a time after said second time a substantial inability to recall substantially all events during the time period from said first time to said second time; and
  - a video representation of an indication that during said time period said character was an active participant in a plurality of events.

20. (Original) An information storage medium as in claim 19, wherein said information storage medium is a DVD.

**EVIDENCE APPENDIX**

**None.**

**RELATED PROCEEDINGS APPENDIX**

**None.**